Fiscal Year 2001

Annual Performance Evaluation and Appraisal

Lawrence Berkeley National Laboratory

Prepared by:

U.S. Department of Energy
Oakland Operations Office
and
Berkeley Site Office
December 2001

CONTRACTING OFFICER'S EVALUATION

The DOE Oakland Operations Office Performance Review Board reviewed and discussed the recommendations of functional managers and staff concerning the appropriate adjectival and numeric ratings with which to rate the University of California's performance in the management and operation of the Lawrence Berkeley National Laboratory. Based upon this process and a unanimous vote of the members of this board, an adjectival rating of "**Outstanding**" is granted, based on a numeric rating of 92.3 points. This report, the "Fiscal Year 2001 Annual Performance Evaluation and Appraisal - Lawrence Berkeley National Laboratory" provides the basis for my determination, and is hereby endorsed and approved.

Recommendation:

James S. Hirahara

Date: 1/28/02

James S. Hirahara
Deputy Manager, Acting
Chairperson, Performance Review Board

Approval:

Camille Yuan-Soo Hoo

Date: 1/31/02

Camille Yuan-Soo Hoo
Manager
Oakland Operations Office

FY 2001 Annual Performance Evaluation and Appraisal for Lawrence Berkeley National Laboratory

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Introduction

This report, produced by the U. S. Department of Energy (DOE) Berkeley Site Office (BSO) and the National Nuclear Security Administration (NNSA) Oakland Operations Office (OAK), provides the Contracting Officer's written assessment of the Contractor's performance at the Lawrence Berkeley National Laboratory (LBNL, or Laboratory) under contract DE-AC03-76SF00098. Contract Appendix F defines the Objective Standards of Performance agreed to by DOE and the University of California (Contractor or UC) to annually measure the Contractor's overall performance of administration and operations, and science and technology/programmatic performance under the contract.

Performance Period

This appraisal and evaluation is for the period from October 1, 2000 through September 30, 2001 (Fiscal Year 2001). Certain performance measures are on a calendar year basis and they are identified in the "Detailed Appraisal Results" section of the report.

Appendix F - Objective Standards of Performance and Contract Requirements

This report provides Contracting Officer's Fiscal Year 2001 evaluation and validation of the Contractor's self-assessment of performance in its management and operation of LBNL for DOE under the contract. In this contract, UC and DOE have agreed to use a performance-based management system for Laboratory oversight. The parties agreed to use clear and reasonable, objective performance measures as standards against which the Contractor's overall performance in Laboratory Management, Science and Technology, and Operations and Administration under the contract will be assessed and evaluated. DOE and UC also agreed that the Contractor would conduct an ongoing self-assessment process, including self-assessments done by the Laboratory, as the principal means by which the Contractor would evaluate compliance with the performance objectives contained in Appendix F.

DOE BSO and OAK conduct validations against the Contractor's self-assessment and evaluate the Contractor's performance. The validation effort is conducted by teams that are responsible for the various functional areas represented in Appendix F. These teams, with guidance from DOE BSO and OAK management, are responsible for developing an adequate, independent basis for assessing the quality, credibility, and accuracy of the Contractor's self-assessment; and to establish a basis for DOE's evaluation of the Contractor's performance.

This report fulfills the requirements of the contract (Appendix F), and specifically supports and meets the following contract requirements:

- Provide a summary of the results from the conduct of the DOE BSO and OAK validation program and evaluation of performance of work under this contract, as required by Clause 2.6.

- Provide a written assessment of the Contractor's performance under the contract based upon the DOE BSO and OAK appraisal program, and the Contracting Officer's evaluation of the Contractor's self-assessment, as required by Clause 2.6(e).

- Provide the basis for determination of the Senior Management Salary Increase Authorization (SIA) Multiplier, as required by Section III (compensation) paragraphs (f), (6) and (8) of Appendix A and Section C, Part III of Appendix F.

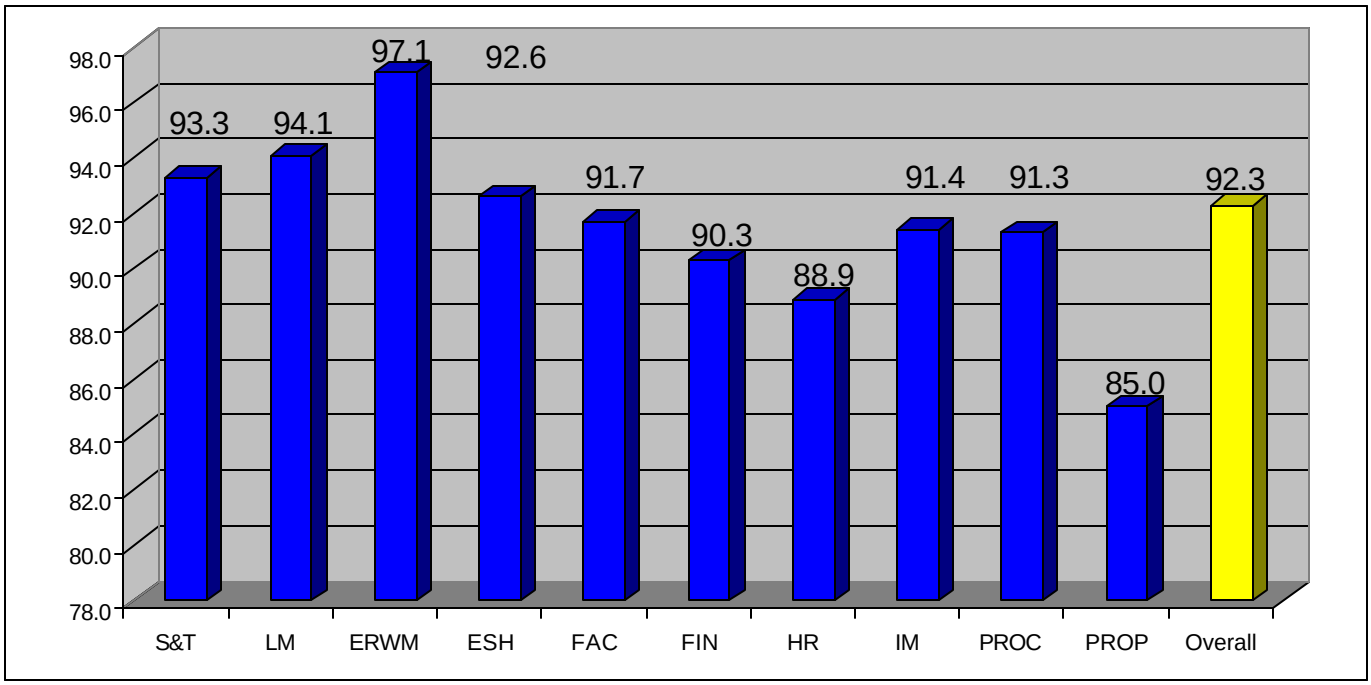
- Provide the basis for determination of the Contractor’s Program Performance fee, as required by Clause 5.3.

FY 2001 Appraisal Results in Brief

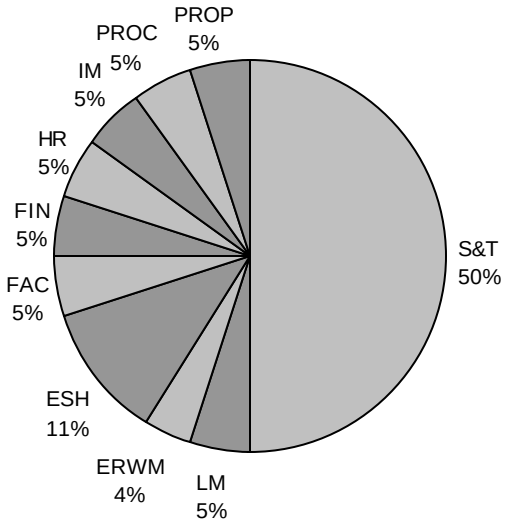
A. Overall Results FY 2001

DOE rates the overall performance of LBNL as **Outstanding** for FY 2001.

A.1 RATING SUMMARY

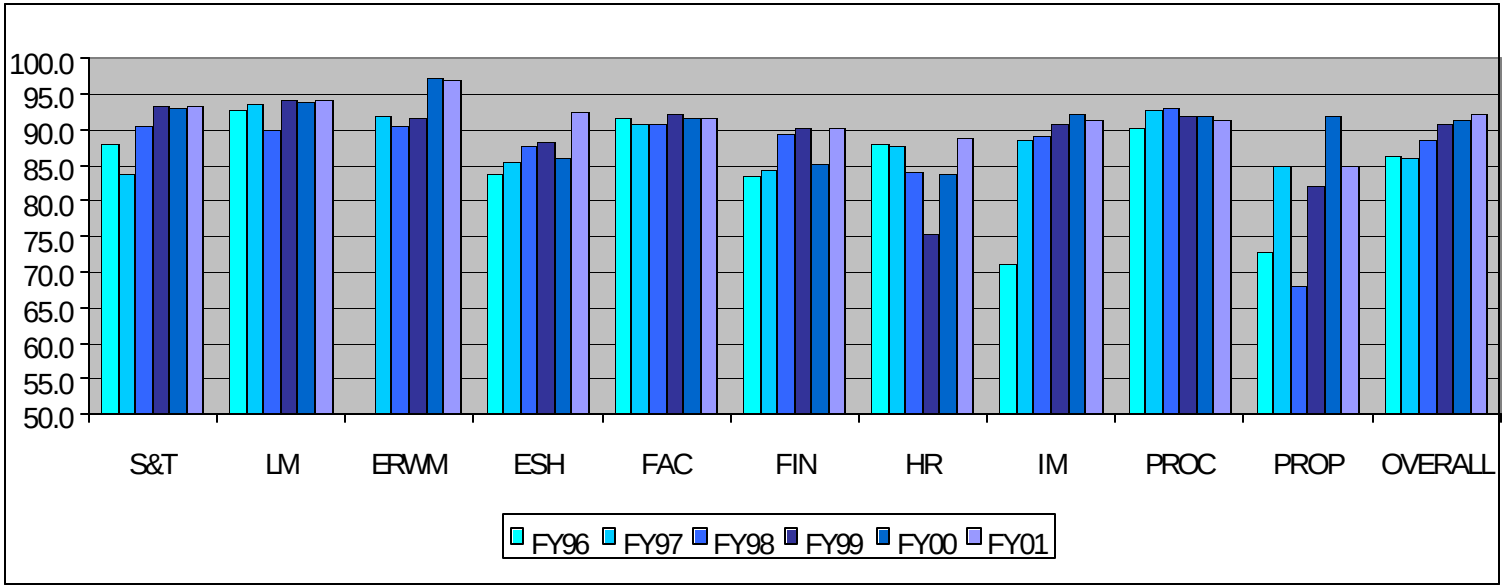


A.2 WEIGHTING SUMMARY



FY 1995-2001 Appraisal Results in Brief

B. Overall Trend Results FY 1996 – 2001



Science and Technology

DOE's science and technology/program assessment of the Contractor is based upon peer reviews of its scientific divisions, corresponding self-assessments by LBNL and the University of California, and validation reviews by DOE HQ program managers and BSO program representatives. The DOE assessment of performance for research programs is comprised of a funding weighted evaluation of the following DOE programs: Basic Energy Sciences (BES), High Energy Physics (HEP), Nuclear Physics (NP), Advanced Scientific Computing Research (ASCR), Fusion Energy Sciences (FES), Biological and Environmental Research (BER), Energy Efficiency and Renewable Energy (EERE), Civilian Radioactive Waste Management (CRWM, the Yucca Mountain Project), and Fossil Energy (FE). Within LBNL, each of these DOE programs is predominantly executed by one or two of the Laboratory's twelve scientific divisions. An exception to this is the BES program, which is primarily carried out by four Laboratory divisions, including the Advanced Light Source (ALS).

Institutional Level Assessment

LBNL continued to have a very successful and scientifically productive year in FY 2001. It's overall Science and Technology score of 93.3 reflects the fact that all but one Office of Science programs provided across-the-board ratings of "outstanding" to LBNL research programs. The overall rating of Science & Technology programs is **outstanding** for FY 2001.

Basic Energy Sciences

The overall performance of the Basic Energy Sciences (BES) Program at LBNL is rated as **outstanding**. This achievement is evident in the many scientific contributions made at LBNL during the past year. BES-funded LBNL programs are very responsive to high priority mission needs – especially in the Metal and Ceramic Sciences Program. Utilization of the BES user facilities continues to be effective with high levels of satisfaction while maintaining the priority to meet DOE programmatic needs – as demonstrated in both the Advanced Light Source (ALS) and the National center for Electron Microscopy (NCEM) facilities. BES-funded programs have sustained achievement standards that put these LBNL programs into "world class" status. There were many key accomplishments that produced unprecedented results or very significant findings that further advanced that understanding of basic science. The latest peer review results acknowledged "world class" scientists in their respective field with some scientists receiving very prestigious national honors for their work.

High Energy Physics

Performance of the Physics Division (PD) and Accelerator and Fusion Research Division (AFRD) with regard to the High Energy Physics (HEP) Programs is considered to be overall **excellent**. Lawrence Berkeley National Laboratory (LBNL) continues to be a leader in the area of detector development in support of research at Fermi, Brookhaven, Stanford Linear Accelerator Center, and the Large Hadron Collider in Europe. Problems occurred in a deliverable for LBNL's work in the Large Hadron Collider program, and no corrective action came until the production review. This failure detracts from an otherwise outstanding program and planning effort.

Nuclear Physics

LBNL continues to provide **outstanding** support in a variety of the major nuclear science programs. All efforts have been outstanding. The LBNL group is playing a leading role at the Sudbury Neutrino Observatory (SNO), and the KamLAND neutrino experiment in Japan. LBNL is the lead United States laboratory in the collaborative effort, and is building the electronics and contributing to the calibration tools development. When the results of its 1999 discovery of Element 118 could not be reproduced, LBNL maintained scientific integrity and was forthright in publishing a retraction. A high-level review committee was formed to closely examine this situation and make recommendations to avoid recurrence.

Computing Sciences

Computing Sciences and network research continues to be **outstanding** at LBNL and cuts across all that is done at the Laboratory. LBNL is commended for developing and maintaining the National Energy Research Scientific Computing Center (NERSC), the premier high performance center in the United States for unclassified computing and probably the world. LBNL's Applied Mathematics Research Program provides research into computationally intensive techniques for solving complex mathematical problems. The Laboratory Technology Research (LTR) office continues to show leadership, creative thinking, and study of critical scientific questions requiring high quality scientific results. NERSC continues to be an extremely powerful computing environment incorporating high performance computing capability, capacity and storage resources. NERSC is also the Center for Computational Science and Engineering which addresses high-resolution numerical methods for advanced modeling and problem solving in areas such as computational fluid dynamics. The Energy Sciences Network (ESnet) is the backbone of the DOE research network. ESnet provides access to NERSC computing environment and to other research, experimental and computational facilities for scientists across the nation and by international collaboration. LBNL is also in the forefront of DOE's Scientific Discovery through Advanced Computing (SciDAC) program for the development of a new generation of tools and technologies for scientific computing.

Fusion Energy Sciences

Lawrence Berkeley National Laboratory (LBNL) has done an **outstanding** job as the lead for the Office of Fusion Energy Sciences' (OFES) Inertial Fusion Energy (IFE) program. LBNL management has shown leadership as exemplified by their collaboration with Lawrence Livermore National Laboratory and the Princeton Plasma Physics Laboratory (PPPL) on the Virtual National Laboratory (VNL) for Heavy Ion Fusion. They have demonstrated vision in carrying out long range planning, and strong support for the program. With future fusion energy budgets uncertain, LBNL leadership through the VNL has done careful planning for near term research and has identified near term scientific milestones in much-improved field work proposals and other documents made available to OFES. This will allow an orderly progression of accomplishments to be demonstrated. The new director of the VNL has brought new insight and leadership to the program.

Biological and Environmental Research

LBNL's overall performance continues to be **outstanding**. The Laboratory's Life Sciences Division plays an important role in investigating the basic mechanisms of human disease. The Division has established a preeminent position in four specific areas of human disease research: coronary artery disease; the biology of breast cancer; metabolic studies of neurological diseases; and disorders of red blood cell formation. These studies entail a spectrum of disciplines: high throughput genomic sequencing; molecular cytogenetics; cellular differentiation, growth, aging, and carcinogenesis; hematopoiesis; subcellular and macromolecular structure; diagnostic and functional imaging; radiation biology; nuclear and molecular medicine; and the development of bioinstrumentation. In the environmental programs, the Laboratory has performed excellent technical work under the DOE Ocean Carbon Sequestration (DOCS) program, co-led with LLNL, but synergies between the DOCS research institutions and effective management planning for the future of the program were not realized as expected.

Energy Efficiency and Renewable Energy

Overall Lawrence Berkeley National Laboratory's (LBNL) performance was **excellent**. LBNL is a leader providing high quality science for DOE. LBNL's program meets the needs of DOE HQ roadmaps and energy conservation/efficiency mission. The Laboratory showed flexibility in modifying its research to accommodate programmatic needs. LBNL continues to show scientific leadership, strength in managing its technical and scientific resources, responsiveness to DOE's programmatic goals and needs, and effectiveness in technology transfer, all performed in a cost-effective manner.

Civilian Radioactive Waste Management

Lawrence Berkeley National Laboratory's (LBNL) technical role in the Yucca Mountain Project is **outstanding**. LBNL has significant involvement in DOE's mission and national needs. LBNL's planning products are consistently the highest quality and are delivered per schedule.
LBNL has improved their quality assurance based on last year's suggestions for improvement. LBNL demonstrated excellent performance by having all of their models judged to be properly validated during independent reviews.

Fossil Energy

LBNL conducts **excellent** research in advanced diagnostics, reservoir imaging and process monitoring to improve recovery from oil fields. The Laboratory works in close concert with industry and academia, and its research is applied quickly. Industry continues to advocate additional funding support for the Laboratory's work. LBNL's first year of work under the high-priority Carbon Geological Sequestration program was also excellent. A strong laboratory-academia-university team has been formed.

Laboratory Management

Lawrence Berkeley National Laboratory's (LBNL) overall Laboratory Management rating for FY 2001 is **outstanding** at 94.1 percent. LBNL continued to build upon a strong and integrated set of planning activities in FY2001, and to advance its "Vision 2010." Laboratory strategic directions and competencies remain well-aligned with plans and directions of DOE and Office of Science (SC) programs, and LBNL continues to be a well-spring of initiatives and innovation to pursue frontier research opportunities across a broad range of SC and DOE programs. In Congressional testimony and other venues, the LBNL Director articulated the importance of SC to the Nation's research in the physical sciences and the value of the DOE system of laboratories to the Nation. The Laboratory continued its strong support to the DOE "integrated system of laboratories" by contributing its expertise in accelerators, detectors, and other areas through collaborations on a number of major facilities and projects around the DOE complex. The Laboratory continues to respond to new DOE and Congressional requirements related to security, project management, travel costs, and others.

Program Results included: planning and technical development of the "Molecular Foundry" project which was successfully peer-reviewed by SC-BES and is on-track to become among the first DOE facilities constructed under the National Nanoscience and Technology Initiative; continued expansion in the user base and scientific productivity of the Advanced Light Source to 1200 users; successfully relocating the National Energy Research Supercomputing Center to the Oakland Scientific Facility and expanding its peak capacity to 5 teraflops, making it the largest unclassified supercomputer in the world; further development of a path-breaking astrophysics program, particularly the proposed Supernova Acceleration Probe satellite, to measure fundamental properties of the universe; utilizing the Joint Genome Institute/Production Genomics Facility for the DNA-sequencing of numerous microbes, fugu fish, sea-squirt, and working to finish the sequencing of its part of the public Human Genome Project (chromosomes 5, 16, 19); significant initiation of a design for an advanced Energy Efficiency and Electricity Reliability office-laboratory – proposed to the DOE Office of Energy Efficiency and Renewable Energy (EERE) - for a facility that would provide space, integration, and the first EERE "showcase" facility at LBNL; development of several useful websites to assist the State of California during the western regional energy crisis; critical geological analysis and other contributions to the DOE Yucca Mountain project during the final year of scientific characterization of the site as a potential national repository for high-level radioactive waste from the Nation's commercial nuclear reactors.

Operations Results included: Environmental sampling for possible tritium contamination is underway after community consensus was achieved through the Environmental Sampling Task Force. The Laboratory was proactive in developing an Integrated Safeguards and Security Management (ISSM) Plan modeled after the line accountability approach used successfully for Integrated Safety Management (ISM). The Cyber-Security Program Plan is being successfully implemented with leading edge intrusion detection software developed by the Laboratory. LBNL hosted a visit by the Hamre Commission, chartered to advise DOE national leadership on the balance between science and security. ISM is institutionalized at LBNL, and Laboratory accident/injury statistics are improved and again trending downward. A DOE-HQ Environmental Review during FY2001 reached positive conclusions. A more detailed cost-estimate for the Bevatron Decontamination and Demolition (D&D) project was prepared, and some new resources are anticipated and will allow incremental progress in FY2002. Notable new institutional initiatives were pursued to instill diversity as a value and practice through Division-level Diversity Plans. The Laboratory's Public Affairs Office was reorganized and

elevated, and multiple new public outreach and education efforts were pursued in implementing the FY2001 objectives in its Community Relations Plan. Overall laboratory indirect (overhead) rates continued to decline, especially notable at a time when new DOE and Congressional requirements are being implemented, and the need for infrastructure investments is growing. At the request of the DOE Undersecretary and a DOE Laboratory Operations Board Study Team, LBNL commenced a Pilot Study of Best Practices for the management, operation and administration of federal laboratories. The results are expected to identify improvement opportunities and influence the next LBNL contract that will be negotiated during FY2002.

Laboratory Management remains performance/results-driven, and supportive of partnership and engagement with customers and stakeholders. Several standing forums and venues are utilized to maintain regular communications with DOE and the University of California, and to internally convey progress, directions, and expectations to Laboratory management and staff. LBNL has a mature system of annual individual performance appraisals that supports line management communications and accountability. Laboratory Management followed-up and is continuing to focus attention on issues/opportunity areas raised in last year's DOE appraisal, notably in human resources.

LBNL further reduced its institutional indirect burden rates in FY2001, lowering the composite labor burden by another 2.4 percent and the general and administrative rate by another 1.4 percent. The ratio of research to support staff funding remained approximately level at 2.2. The Laboratory Directed Research and Development (LDRD) program continues to seed-fund leading-edge projects built upon institutional competencies and DOE strategic directions. The Laboratory continues to make investments in its management information systems. These systems are utilized effectively to minimize overhead costs, improve services to research programs, plan the use and stewardship of facilities and other capital assets, and prioritize site investments.

In FY2001, LBNL's leadership increased its interactions and dialogue with the local community. The Public Affairs Department was reorganized, with a new PA Director reporting to the Laboratory Director. LBNL's EH&S Director has ably served in this position on an acting basis, while a national search is underway for a permanent PA Director. Agreement was reached with Environmental Sampling Task Force, a 21-member community advisory group, on an environmental sampling plan associated with the operation of the National Tritium Labeling Facility (NTLF). The sampling plan is now being implemented, but the NTLF is planned for shutdown beginning in FY2002 following the curtailment of funding support from the National Institute of Health (NIH). The Berkeley Laboratory continues to implement an active vegetation management program, and participates in the East Bay Hills Emergency Forum to reduce the risk of wildfires. The Center for Science and Engineering Education (CSEE) continues to work in partnership with educational institutions and engage Laboratory divisions and staff in science education and outreach activities across all levels of students and teachers. New efforts are aiming to leverage limited DOE funding with larger NSF resources.

Laboratory Management continued an effective system of line-management accountability to promote a culture of follow-through and meeting commitments. LBNL continues to employ several internal systems to track commitments, assure follow-up, and enforce accountability on actions resulting from reviews, audits, and other venues. LBNL has a senior-level Project Integration Management Board (PIMB) to assure communications on projects and project commitments, and all major scientific projects are reviewed semi-annually. All major scientific, cost and schedule milestones continue to be met on LBNL's contributions to the SNS and DARHT projects.

Operations and Administration

Environment Restoration and Waste Management

LBNL overall performance remains **outstanding** at 97.1 percent. The Laboratory has done an outstanding job in meeting waste minimization targets, and continues to reduce the unit cost per operations dollar for disposal or recycling of each of the waste types. LBNL Waste Management has met and exceeded the treatment and disposal commitments identified in the DOE Environmental Management program's Accelerated Cleanup document. LBNL developed clean-up technologies are being used at other DOE and Government sites. LBNL's Environmental Restoration Program is managed to improve project/program performance. Three parameters are tracked to evaluate overall performance and achieve an outstanding rating: the schedule variance, and completion of regulatory and non-regulatory milestones. The Laboratory again executed the approved technical scope of its FY01 baselines in accordance with the approved budget.

Environment, Safety and Health

LBNL's performance in Environmental, Safety and Health (ES&H) continues to improve and is rated overall **outstanding** at 92.6 percent in FY2001. The Laboratory has done an outstanding job of fully integrating Integrated Safety Management (ISM) into its work processes, and work is performed safely. Most divisions improved their ES&H performance and are performing at the outstanding level; however, a few divisions are performing at the excellent level and need to be diligent in their efforts to drive improvement. The Laboratory continues to do an excellent to outstanding job in the protection of the worker, public, and the environment. Increased involvement of line management has helped to achieve this performance. In general, improvements to the work processes during the performance period have resulted in the maintenance of a safe work environment at the Laboratory and reduced accident injury statistics. Accident injury statistics have moved from marginal to excellent and the Laboratory is doing an excellent job of inspecting workspaces, identifying hazards and tracking the resultant corrective actions to ensure that they are resolved in a timely manner. Control of radioactive material, radiation exposures to the workers and the public is outstanding and at less than 1 percent of the regulatory limits. The control of radiological air emissions is outstanding at less than 1% of the limits. The control of environmental releases to the sanitary sewer is excellent at 2 percent of the limits. The Laboratory's Self-Assessment Program and BSO have observed some opportunities for improvement in the identification of hazards and the tracking of corrective actions, and actions are underway to address them.

Facilities Management

LBNL's overall Facilities Management rating is **outstanding** at 91.7%. For the fourth consecutive year, LBNL's real property management has been outstanding. All established milestones in the area of real property were completed on time. The milestones included production of the annual Facilities Information Management System (FIMS) Quality Assurance Plan along with verification of population and accuracy of the LBNL portion of the FIMS database, optimizing of LBNL office and lab space, producing a suitability report for all LBNL buildings, and management of substandard building space.

Notable performances included validation of almost 100 percent of the FIMS required data with corresponding high accuracy, 14,700 sq. ft. of space renovated with office utilization now standing at 113 sq. ft. per person and several successful leasing efforts. LBNL's performance of Physical Asset Planning continues to be outstanding. LBNL's comprehensive work plan achieved key planning objectives and refined processes while emphasizing value-added activities. This year's work plan covered Site and Long Range Planning, Vegetation Management/Wildland Fire Risk Management, National Environmental Policy Act/California Environmental Quality Act, Geographical Information System, Parking and Transportation Analyses, Signage, and Facilities Planning Web Site. All milestones were completed on a timely basis and all on-going activities were satisfied. This year's significant accomplishments included the progression of the Long Range Development Plan, update of the web-based LBNL Comprehensive Facilities Plan and the development of an implementation plan to convert Lawrence Road to two-way traffic. LBNL's Project Management overall performance remains excellent. Construction project work performance continued at an outstanding level, reflecting on time completion of all line-item, general plant and operating funded project milestones. Noteworthy accomplishments include completion of planned activities supporting the Oakland Scientific Facility, Building 77 Rehabilitation, Sitewide Water Distribution System Upgrade, Building 6 Lab and Office Space, and the Spallation Neutron Source. All active line-item projects were managed within their total estimated costs.

LBNL's performance in the area of facility operations and maintenance continued at an outstanding level. The Maintenance Program Plan for FY 2001 included twenty maintenance milestones. Nineteen of twenty maintenance program milestones were completed as agreed. LBNL's facility maintenance team continued to focus on milestones designed to improve the quality of procedures and better track and manage maintenance requirements. Noteworthy achievements in the area of work control and condition assessment included development and implementation of Maximo equipment specifications, defining new preventive maintenance job plans and the continued success of the property outsource inspection program. LBNL's Facility Maintenance Program composite index was again comparable to the "Best-in-Class" among the Energy Facility Contractors Group (EFCOG) benchmarking participants for the selected performance indicators. The Utilities/Energy Conservation performance rating improved from excellent to outstanding. The building energy reduction was 17.4% below FY 1990 levels, which is well ahead of schedule to meet the federally mandated goal of 20% by FY 2005. All eighteen energy management goals were achieved. Significant goals included completion of facility audits and retrofit projects, maintenance of an Electrical Emergency Response Plan, qualification and application for an EPA Energy Star Label for Building 937, maintenance of an electrical recharge program, operation of twenty-two electric powered vehicles, progress in installing a new laboratory-wide energy management control system, and the promotion of employee energy awareness. Reliable utility service improved from good to outstanding with an average reliability of 99.999%.

Financial Management

LBNL's overall performance in Financial Management is rated **outstanding** at 90.3 percent for 2001. The Laboratory made significant improvements in its Financial Management performance. Proactive measures and corrective actions were implemented that contributed to this rating. The Laboratory excelled in decision support and operational effectiveness and improved in financial stewardship and integrity. The turnover of several LBNL staff led to many challenges this past fiscal year. In addition, despite uncertainties stemming from the creation of the Safeguard and Security (S&S) program as a direct-funded program, LBNL successfully implemented the required cost accounting practice changes,

including the requirement to recover pro-rata S&S costs from the Work For Others Program. LBNL took the initiative to commence budget activities and satisfactorily responded to all DOE budget requirements. LBNL successfully controlled costs within the established limits. There were no reportable violations of spending limits and LBNL was quite successful at controlling costs to sub-control levels. The staff of the Budget Office was very responsive to the standard and ad hoc reporting requests of HQ and OAK. This year the Laboratory also restructured its cost distribution system for implementation in FY2002 to allow for improved budget development, execution and reduced variances. The Laboratory worked closely with OAK in this effort and was successful in achieving the desired results for both DOE and the Laboratory. Continued emphasis on corrective actions now in-process is expected to further enhance performance during the next evaluation period.

Human Resources

LBNL's Human Resources function continued to demonstrate an **excellent** level of performance at 88.9 percent in FY2001. During this past year, Human Resources efforts sought to maximize the efficiency of processes and value of services. In the area of compensation, the Laboratory completed the restructuring of the Science and Engineering job family, further refined the survey matching and employee map-over for the Computing Science, Engineering, and Environmental, Health and Safety job families, and completed the full validation process to establish the Finance, Administration, Human Resources and legal functional structures. This has provided laboratory management with accurate salary data on which to base compensation management decisions. In addition, in an effort to streamline the manual processes performed by the compensation staff, a program was purchased which will perform all the calculations required for LBNL's Compensation Increase Plan, will automatically adjust pay ranges, and will generate on-going and ad hoc reports. In FY2001, the performance appraisal process was identified as requiring improvement. Analysis of the current process led to a determination that it lacked value and effectiveness throughout the Laboratory, and a new process will be created and deployed in FY2002. The establishment of a Recruitment Unit has provided greater structure to LBNL's approach to recruitment as it assesses the effectiveness of strategies and measures its impact on hiring. Finally, Human Resources has continued to expand its role in work force planning at the laboratory by highlighting areas of interest in semi-annual demographic data, as well as providing data on the utilization of rehired retirees and its implications on succession planning.

Information Management

LBNL's overall performance in Information Management is rated **outstanding** at 91.4 percent for FY 2001. This rating recognizes the Laboratory's continuing pursuit towards providing quality information management and technology services in a cost effective and efficient manner. LBNL is managing information technology in a manner consistent with capital investment planning requirements, and trending towards meeting expectations of the Clinger-Cohen Act. The Laboratory's Records Management, Printing and Reproduction services have consistently exceeded performance thresholds. New systems, improved processes, and benchmarking with private and public sector entities have resulted in substantial cost avoidance and savings. The end product is the reduction of the Laboratory's IT overhead costs and improvement of overall Information Management services.

Procurement

LBNL's Procurement activities earned a rating of **outstanding** at 91.3 percent for FY 2001. The Laboratory continued to reduce its cycle time from 7 days in FY2000 to 6.4 days. The DOE benchmark is 9.7 days. The cost to spend ratio continues to be one of the lowest within DOE at 1.26, a metric that demonstrates that LBNL's procurement function is operating efficiently. The most notable achievement for the year is in the area of assessing system operations. LBNL has an exceptional, balanced process that incorporates Balanced Scorecard principles. An area for improvement and attention continues to be supplier management.

Property Management

LBNL's Personal Property Management Program earned an overall rating of **excellent** at 85 percent for FY 2001. The Laboratory's overall Property Management Program is sound. This year's rating represents a decline in performance from the "outstanding" level earned in FY 2000. This decline is primarily attributable to a reduced sensitive inventory find rate and reduced performance in the tagging of new assets. The decline in the sensitive inventory was not uniform across the entire organization but was attributable to the unsatisfactory results in a single division. The inventory of equipment resulted in a strong 99.4 percent find rate. Performance improved over FY 2000 in the areas of equipment accurately assigned to custodians, and assets assigned to a custodian within 60 days. Laboratory management is to be commended for institutionalizing personal accountability for property, and for being visible, proactive and creative in addressing the property management issues. The Laboratory continued a well-managed program of vehicle fleet utilization.

Conclusions and Recommendations

LBNL performed at an overall **outstanding** level of performance for the third consecutive year in FY 2001. The Laboratory earned overall 'outstanding' ratings in Science and Technology, Laboratory Management, and six of eight operations and administration areas assessed during the year. There are no significant recommendations. The Laboratory is encouraged to continue pursuing scientific initiatives contributing to its "Vision 2010," and excellence in all areas of operations and administrative support to its mission.

Science & Technology

Science and Technology / Programmatic Performance

The Institutional-level Assessment for the Lawrence Berkeley National Laboratory (LBNL) highlights strategic laboratory plans and directions, and major program and institutional challenges and issues. LBNL continues to excel in its ability to plan, develop and execute scientific programs. The Laboratory's institutional planning process is aimed at establishing research directions and priorities, and ensuring the future viability of vitality of the institution. The Director's statement in the Laboratory's FY 2002 – FY 2006 Institutional Plan and the Director's 'State of the Laboratory' address provided in June 2001 highlight significant research progress during the past year, where Laboratory Management's attention has been directed, and outline strategic directions and initiatives for the future. LBNL's Vision 2010 remains comprised of five broad thrust areas that build upon its core competencies and emerging new research needs and opportunities:

- Fundamental Understanding of the Universe
- Quantitative Biology
- Complex Systems (Nanoscience)
- New Energy Sources and Environmental Solutions
- Integrated High-Performance Computing.

The Laboratory has several current program activities and proposed new initiatives under each of these areas. They remain well-aligned and integrated with the Strategic Plans of DOE and the Office of Science. While programs in the physical and energy sciences have generally struggled to keep pace with inflation, research in the life- and computing-sciences has thrived and LBNL's work in these areas has grown accordingly.

LBNL's management of the Laboratory-Directed Research and Development (LDRD) and Work for Others (WFO) programs continue to direct the Laboratory's resources toward new scientific opportunities and to keep the Laboratory at the forefront of science and technology within its mission profile. The Laboratory continues to support the LDRD program at about 2.5-3.0 percent of the total funding. WFO continues to comprise about 20% of total annual funding at LBNL, and is especially in strong in the life science research divisions. The National Institute of Health (NIH) now provides about half of LBNL's WFO sponsorship, and about 10% of the Laboratory's total annual budget.

LBNL continued to operate five user centers open to qualified researchers in the U.S. and from around the world:

- Advanced Light Source (ALS) - ~1200 users
- National Center for Electron Microscopy (NCEM) - ~200 users
- National Energy Research Supercomputer Center (NERSC)/Energy Sciences Network (ESnet) - ~2400 users
- 88" Cyclotron - ~200 users
- National Tritium Labeling Facility (NTLF).

All of these user facilities continue to operate at or near record levels of scientific productivity. The functionality of the ALS continues to expand as new beamlines are added on both the high-energy (intermediate X-ray) and low-energy (far-infrared) ends of its operating regime. The ALS user base continues to grow and now exceeds 1200. The NCEM set a new world record in FY2001, imaging atoms at 0.78 angstroms. The ALS and NCEM are two unique measurement and characterization facilities that will complement the planned "Molecular Foundry" nano-fabrication facility at LBNL. NERSC-3 is fully implemented, and at 5Tflops peak capacity is currently the largest unclassified supercomputer in the world. As a result, total allocations of computing time in FY2002 will increase 4-

5X over FY2001. Planning for NERSC-4 is underway. The 88" Cyclotron is one of three low-energy nuclear physics facilities operated in the DOE laboratory complex. It is under consideration for possible closure due to program budget constraints, with a decision pending in early FY2002. The NTLF is finishing a distinguished 20-year history of biomedical research and training using tritium as a metabolic tracer element. The NIH, which has sponsored NTLF operations, has decided to pursue other techniques for this purpose, and the NTLF is planned for shutdown in early FY2002.

Space needs have been a long-standing issue for most programs at LBNL. Planning progress is being realized on several new facilities contained in the Laboratory's Strategic Facilities Plan. The conceptual design for the Molecular Foundry (TEC ~$85M) is being completed and this major project is on-track for construction over the next several years. It would replace numerous aging facilities in the "old-town" area of the Laboratory adjacent to the ALS. An innovative proposal for an Energy Efficiency and Electricity Reliability (EEER) office/laboratory facility (TEC ~$23M) has been proposed to the DOE Office of Energy Efficiency and Renewable Energy (EERE), and, if constructed would be the first EERE building at LBNL. In collaboration with DOE and the University of California (UC), LBNL is also pursuing a third-party financed office building for about 200 occupants near the entrance to the Laboratory. A Request for Proposal (RFP) is in preparation, with selection and the start of design and construction expected in 2002.

During FY 2001, LBNL continued to successfully implement several operational and administrative requirements made by DOE and Congress while keeping the impacts on its science and technology programs relatively modest. These included: instituting diversity as a value and practice through division-level Diversity Plans, managing travel costs within funding caps, obtaining DOE pre-approvals for hosting large conferences, and implementing requirements related to physical and cyber-security. LBNL continues to successfully preserve its open environment as a "Tier III" status as a DOE site, i.e., a fully open institution with no classified work or information on-site. This remains critical to all S&T programs given the Laboratory's close ties with the UC Berkeley campus and other universities, and given that a significant fraction of its research staff are foreign nationals. LBNL remains extensively involved in major collaborations at research facilities being constructed and operated across the DOE complex and around the world. Also of importance to all S&T programs, LBNL is in the process of modernizing its engineering and fabrication capabilities, including new tools for virtual engineering and automated precision machining

DOE's science and technology/program assessment of the Laboratory is based upon individual peer reviews of its twelve scientific divisions, corresponding self-assessments by LBNL and the University of California, and validation reviews by DOE HQ program managers and their DOE BSO counterparts. The DOE assessment of performance for research programs is comprised of a *funding-weighted* evaluation of the following DOE programs: Basic Energy Sciences (BES), High Energy Physics (HEP), Nuclear Physics (NP), Advanced Scientific Computing Research (ASCR), Fusion Energy Sciences (FES), Biological and Environmental Research (BER), Energy Efficiency and Renewable Energy (EERE), Civilian Radioactive Waste Management (the Yucca Mountain Project-YMP), and Fossil Energy (FE). The cross-walk between LBNL divisions and their primary DOE program sponsor is straight-forward and direct except for two multi-program sponsored divisions: the Accelerator and Fusion Research Division (funded by BES, HEP, and FES), and the Earth Sciences Division (funded by BES, BER, YMP, and FE).

The overall rating of these S&T programs is **outstanding** for FY 2001.

LBNL, UC and DOE evaluated the programs against the following four criteria:

Criteria 1: Quality of science

Reviewers will consider recognized indicators of excellence, including impact of scientific contributions, leadership in the scientific community, innovativeness, and sustained achievement. As appropriate, they may also evaluate other performance measures such as publications, citations and awards.

Criteria 2: Relevance to national needs and agency missions

Committees will consider the impact of Laboratory research and development on the mission needs of the Department of Energy and other agencies funding the programs. Such considerations include national security, energy policy, economic competitiveness, national environment goals, as well as the goals of DOE and other Laboratory funding agencies in advancing fundamental science and strengthening science education. Committees will assess the impact of Laboratory programs on industrial competitiveness and national technology needs. In this assessment, committees will assess characteristics that are not easily measured, including relevance of research programs to national technology needs and effectiveness of outreach to industry. As appropriate, they may consider such performance measures as licenses and patents, collaborative agreements with industry, and the value of commercial spin-offs.

Criteria 3: Performance in the technical development and operation of major research facilities

Performance measures include success in meeting scientific and technical objectives, technical performance specifications and user availability goals. Other considerations may include the quality of user science performed, extent of user participation and user satisfaction, operational reliability and efficiency, and effectiveness of planning for future improvements, recognizing that DOE programmatic needs are considered to be primary when balanced against user goals and satisfaction. This includes, but is not necessarily limited to, LBNL's performance related to aspects of the Spallation Neutron Source (SNS) Project, in accordance with the inter-Laboratory Memorandum of Agreement and approved work plans.

Criteria 4: Programmatic performance and planning

The assessment should focus on the achievement of broad programmatic goals, including meeting established technical milestones, carrying out work within budget and on schedule, satisfying the sponsors, providing cost-effective performance, and planning for the orderly completion or continuation of the programs, and appropriate publication and dissemination of scientific and technical information. In assessing the effectiveness of programmatic and strategic planning, the reviewers may consider the ability to execute projects in concert with overall mission objectives, programmatic responsiveness to changes in scope or technical perspective, and strategic responsiveness to new research missions and emerging national needs. In the evaluation of the effectiveness of programmatic management, consideration may include morale, quality of leadership, effectiveness in managing scientific resources (including effectiveness in mobilizing interdisciplinary teams), effectiveness of organization, and efficiency of facility operations.

Performance Area: Basic Energy Sciences

FY 01 Overall Performance Summary*:*

The overall performance of the Basic Energy Sciences (BES) Program at the Lawrence Berkeley National Laboratory (LBNL) is rated as **Outstanding**. This achievement is evident in the many scientific contributions made at LBNL during the past year. BES-funded LBNL programs have been very responsive to high priority mission needs – especially in the Metal and Ceramic Sciences Program. Utilization of the BES user facilities continues to be effective with high levels of satisfaction while maintaining the priority to meet DOE programmatic needs – as demonstrated in both the Advanced Light Source (ALS) and the National center for Electron Microscopy (NCEM) facilities. BES-funded programs have sustained achievement standards that put these LBNL programs into "world class" status. There were many key accomplishments that produced unprecedented results or very significant findings that further advanced that understanding of basic science. The latest peer review results acknowledged "world class" scientists in their respective field with some scientists receiving very prestigious national honors for their work.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Outstanding

The Metal, Ceramic and Engineering Sciences Team conducted a peer review of its programs at the Lawrence Berkeley National Laboratory (LBNL). The reviewers found that the National Center for Electron Microscopy (NCEM) produces outstanding science. The program on electronic materials was also found to produce outstanding science. Although the reviewers considered many of the topics under the High Performance Metals Program to be technically important, they expressed concern over the great number of topics being pursued with too few personnel, and believed that this research would yield superficial results. This latter program's results since then, have been consistent with this concern. The Non-Destructive Evaluation Superconducting Quantum Interference Device Program was not productive and will not be funded after September 30, 2001.

Three of the many examples of scientific achievements the past year under the Metal and Ceramic Sciences Program at LBNL are: (1) the Electronic Material Program discovered a new mechanism for atomic diffusion in the semiconductor gallium antimonide, and the startling discovery that gallium atoms move more than 1,000 times faster than antimony atoms; (2) the unprecedented high-resolution transmission electron microscopy studies, using new image acquisition and analysis techniques that yield sub-Angstrom resolution, have linked the mechanical properties of a silicon nitride ceramic to the exact location of additive atoms at the grain boundaries; and (3) the development of a new silicon carbide-based ceramic with an unprecedented combination of high fracture-toughness, mechanical load-bearing strength, and resistance to deformation at high temperatures.

Two LBNL scientists supported under the Metal and Ceramics Program received prestigious honors during the past year. One scientist was awarded the Gold Medal of American Society for Metals International (ASM) "for outstanding scientific research lining microstructure to properties and for leading to a rational design approach for advanced materials." Another scientist was elected to the National Academy of Engineering "for contributions to the understanding of fatigue fracture and failure of engineering structures."

The scientific productivity continues to be outstanding for the research programs supported by the Condensed Matter Physics and Materials Chemistry Team. The operation of the Advanced Light Source (ALS) is outstanding, allowing substantial science to be done. The program planning is extremely good – a number of new opportunities are being exploited and funded. In addition, LBNL has provided outstanding technical collaboration to specific University Principal Investigators in the Department's Experimental Program to Stimulate Competitive Research Program (EPSCoR).

The Molecular Processes and Geosciences Team reviewed its programs at LBNL and are pleased with the overall quality of these programs. The reviewers noted that more than a few people stand out as "world class" scientists in their respective fields. It is their push towards major advances in our understanding, that puts the LBNL programs as a whole into "world class" status and moves the efforts beyond a group of individuals recognized in their own right.

The Earth Sciences Division is expanding a program in biogeochemistry using the ALS, among other facilities. LBNL researchers in geomechanics, geochemistry, and geophysics continue their outstanding research with significant contributions in the peer-reviewed literature. They have been active participants in National Academy of Science/National Research Council committees, Earth Sciences Council, and BES investigator workshops. Recent research proposals in geomechanics, geophysics, geochemistry, and hydrology have received outstanding ratings from the community. Geosciences investigators submitted highly rated proposals to the Climate Change Technology Initiative solicitation related to Carbon Sequestration.

No peer reviews were conducted last year of the Energy Biosciences programs at LBNL. However, these programs are doing well. The concentration of work in photosynthesis and photosynthesis and photobiology is transitioning into photochemistry, which is the direction LBNL wants to go. There has also been an effort associated with biological materials to look at systems with more energy relevance.

The scientific quality of the research performed at LBNL, supported through the Fundamental Interactions Group, is outstanding. The efforts are quite disparate as they involve programs in Photochemistry, Chemical Physics, and Atomic, Molecular, and Optical (AM)) Physics. The programs are not static and have evolved by taking advantage of new opportunities and bringing new staff into the program. These efforts have been very successful. Several of the Principal Investigators are well recognized as "world class". Importantly, the research efforts are quite collaborative in that several staff members may be involved in any given effort, and both theory and experiment have appropriate roles that enhance the overall impact of the LBNL effort. Reviews of this program have been quite positive.

Criteria 2: Relevance to national needs and agency mission

Rating: Outstanding

The Metal and Ceramic Sciences Program at LBNL, is very responsive to high priority energy mission needs. Also, the relevance to national needs and the Department of Energy's missions is excellent for the programs supported by the condensed Matter Physics and Materials Chemistry Team.

The research support throughout the Molecular Processes and Geosciences Programs at LBNL, continues to be quite relevant to DOE programmatic interests. For example, the Geosciences research program is recognized for its impact on DOE's technology programs, especially those of Fossil Energy and Environmental Management. LBNL leadership in combining fundamental geochemical, geomechanical and hydrologic investigations of fluid-flow processes in the shallow crust, serves as an outstanding foundation for collaboration and integration of basic and applied research. They have taken their foundational research in topics related to carbon dioxide sequestration and used it as a basis for winning support for the three laboratory (LBNL – Lawrence Livermore National Laboratory – Oak Ridge National Laboratory (ORNL) Geo-Seq project from the Office of Fossil Energy. This is an outstanding example of linking basic and applied research programs intellectually and practically.

The research efforts at LBNL supported by the Fundamental Interactions Group, continues to be very relevant to the energy mission of the BES. The research programs address fundamental issues in solar photochemical energy conversion and combustion, and involve the effective use of the ALS.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

The peer review of the NCEM found that this user facility is quite effective, operates well, and provides its users with great satisfaction. The scientific output and user satisfaction from the NCEM have been outstanding; not withstanding the long-standing and unresolved difficulties in repairing the foreign-made high-voltage transformer and power supply that were compounded by the manufacturer's discontinuance of this equipment. The NCEM has developed and provided software for high-resolution electron-optical characterization of defects, that permits the reconstruction of electron wave amplitude and phase from an out-of-focus series of images; thus yielding a level of useful information that exceeds that attainable from a single perfectly focused image. The NCEM continues to make important contributions in atomic level spectroscopy, electron beam holography, electron nanocrystallography, and investigations of the atomic structure of interfaces.

The operation of the ALS is outstanding with substantial science being performed. The two end stations at the ALS supported by the Fundamental Interactions Programs – chemical dynamics and atomic and molecular (AMO) physics – have been very well received by the community and are widely used. A recent review of the ALS and these end-stations has been held.

The proposed Molecular Foundry at LBNL will be a new structure adjacent to the ALS. The building will be a state-of-the art facility for the design, modeling, synthesis, processing, fabrication and characterization of novel moleculoes and nanoscale materials. The Molecular Foundry, in support of

the National Nanotechnology Inititive, will address many research needs – providing a leading research facility and insturmentation to expand the frontiers of the material sciences. A strong project management team, including members from LBNL's Materials Science and Plant Engineering Divisions has been established. Critical Decision-0 (Approval of Mission Need) was received in June 2001. Much of the conceptual design was completed in FY 2001; with the Conceptual Design Report expected to be completed in early FY 2002.
The LBNL Spallation Neutron Source (SNS) Team at LBNL is responsible for the Front End System of the multi-laboratory project for a facility being built at ORNL. This LBNL team has executed an aggressive and successful research and development program that has permitted doubling the initial machine power from the conceptual design. Their technical coordination and interfaces with the other national laboratories has been outstanding. The LBNL management has been very supportive of the SNS Team. The LBNL Director has been proactive in addressing the needs of the SNS project personnel at LBNL, and has been very supportive of the SNS management, with the DOE, and partner Laboratory Directors. From the start, LBNL management has exercised close internal oversight on project progress, with constant involvement from the division manager and effective communication with SNS management at Oak Ridge.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

LBNL management is complemented for their vision to extend the limits of electron beam microcharacterization, with a new generation of unprecedented capabilities for dynamic in-situ microscopy. These capabilities will include energy-filtered imaging, holography, and highly localized spectroscopy with high spectral resolution.

The Earth Sciences Division at LBNL has been a leader in recent DOE planning efforts on Carbon Sequestration Science, and working with the International Energy Agency on mutual technical areas of interest at the Sleipner Oilfield in the North Sea and at the Weyburn Oilfield in Canada.

The overall quality of the LBNL programs in Molecular Processes and Geosciences programs is outstanding. However, it is important to shore up the heavy element chemistry program, the one program that seems to be widely and naturally recognized for its national importance and national laboratory uniqueness. Encouraging collaborations and interconnections between the program and both the catalysis and electrochemistry programs can do this. Also, encouragement should be offered to researchers from outside of the University of California at Berkeley and LBNL to take advantage of the unique capabilities at LBNL. Reducing possible barriers toward collaboration would strengthen these programs.

Performance Area: High Energy Physics

FY 01 Overall Performance Summary:

Performance of the Physics Division (PD) and Accelerator and Fusion Research Division (AFRD) with regard to the High Energy Physics (HEP) Programs is considered to be overall excellent. Lawrence Berkeley National Laboratory (LBNL) continues to be a leader in the area of detector development in support of research at Fermi, Brookhaven, Stanford Linear Accelerator and the Large Hadron Collider in Europe.

Problems in the deliverables for the LBNL work in the Large Hadron Collider program, no corrective action came until the failure of the production review. This failure detracts from an otherwise outstanding program and planning effort.

Overall Performance Rating: Excellent

Criteria 1: Quality of science:
Rating: Outstanding

Physics Division has groups contributing to the construction, maintenance, and operations of critical systems of three major high energy physics experiments, A Toroidal LHC ApparatusS (ATLAS), B/B-bar systems of mesons detector (Babar), and Collider Detector at Fermi Laboratory (CDF). They also provide substantial scientific leadership to those experiments. For example, the physics and silicon-detector construction coordinators for U.S. ATLAS, the commissioning leader for the CDF Run II upgrade, and a recent run coordinator for Babar are all LBNL physicists.

The astroparticle physics group has leaders in the study of both the cosmic microwave background and the measurement of the acceleration of the universe using supernovae. These are two efforts providing some of the most exciting results in cosmology today, and demonstrating important links between high energy physics and astronomy. Innovative detectors that improve the physics capability for many experiments have been developed at LBNL with the new infrared sensitive Charge Coupled Devices (CCDS) being the most recent example.

Accelerator and Fusion Research Division (AFRD) conducts world-class research into the acceleration of particles using lasers and plasmas. The facility for this research has been successfully upgraded this year and promises continuing progress. The potential applications lie both in High Energy Physics and outside.

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding

LBNL has concentrated its efforts on the most important experiments in high energy physics. In addition, they provide strong services to the high-energy physics community. The Particle Data Group based at LBNL collects, organizes, and distributes the most current information on experimental particle physics. This work is now available through the web, in addition to the printed book.

The superconducting magnet program has two facets: an effort to build higher field magnets, and the development with industry of better superconducting wire. The high field magnet program has achieved a world record for field strength in a dipole magnet. New superconducting wire developments have benefited many areas within the DOE program.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

AFRD is participating in the construction of the Large Hadron Collider (LHC) at European Organization for Nuclear Researcy (CERN). They have responsibility for producing the superconducting wire used in the quadrapole magnets being built by Fermilab, components needed to construct the interaction regions, and luminosity instrumentation. In the recent past, LBNL was a major contributor to the design and construction of the B Factory, which has had a spectacularly successful run so far.

Criteria 4: Programmatic performance and planning
Rating: Excellent

The PD division has been under financial stress due to flat or declining budgets, but has successfully preserved its leading programs. Cuts have been made intelligently.

Management has made regular investments into the Microsystems Laboratory. This has made LBNL a forefront producer of specialized electronics components and detectors. All of the major HEP experimental efforts at LBNL, ATLAS, Babar, CDF, and Super Nova Accelerator Probe (SNAP), have been benefited form this.

There have been problems with the engineering of the cryogenic feed boxes being built for the LHC. Inadequate engineering manpower has been allocated to the project and the project failed its recent pre-production review. Despite repeated warnings from previous review committees that there were problems in the program, no corrective action came until the failure of the production review. This failure detracts from an otherwise outstanding program and planning effort.

Performance Area: Nuclear Physics

FY 01 Overall Performance Summary*:*

LBNL continues to provide outstanding support in a variety of the major nuclear science programs. All efforts have been outstanding. The LBNL group is playing a leading role at the Sudbury Neutrino Observatory (SNO), the KamLAND neutrino experiment in Japan. LBNL is the lead United States laboratory in the collaborative effort, and is building the electronics and contributing to the calibration tools development.

LBNL retracted the announcement of the discovery of Elements 116 and 118 because the results could not be reproduced.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Excellent

The low energy nuclear physics research program includes efforts in a variety of areas: nuclear structure, neutrino physics, fundamental interactions, and the study of the physics and chemistry of heavy elements. Lawrence Berkeley National Laboratory (LBNL) is hosting the Gammasphere spectrometer to continue a successful program in nuclear structure at high angular momentum. The LBNL group is playing a leading role at the Sudbury Neutrino Observatory (SNO) that has published its first major physics result that confirms that neutrinos oscillate and that the sun produces neutrinos at a rate calculated by modern solar models. At the KamLAND neutrino experiment in Japan, LBNL is the lead United States laboratory in the collaborative effort, and is building the electronics and contributing to the calibration tools development. KamLAND will measure neutrino oscillations at a large distance from reactors, testing one of the favored oscillation solutions. In the area of fundamental interactions, first data have been taken on the electron-neutrino correlation of laser-trapped 21Na, a measurement that is sensitive to scalar and tensor contributions to electroweak currents. All these efforts are outstanding.

In the area of detection of superheavy elements, in which the LBNL group has played a leading role, the earlier reported discovery of two new elements, 116 and 118, have proven to be incorrect. The data, which were the few recorded events, could not be reproduced in subsequent experimental runs. A more systematic approach to understanding reaction mechanisms for super-heavy formation is underway.
The relativistic heavy ion group at LBNL continues to play an outstanding role in the experiment at Relativistic Heavy Ion Collider (RHIC) at Brookhaven Laboratory Members of the relativistic heavy ion group hold leadership roles in several

Solenoidal Tracker at RHIC (STAR) physics analysis working groups, and have led the data analysis and writing of several of the publications reporting on the first measurements at RHIC. The nuclear theory group mounts an excellent/outstanding effort in studies of nuclear matter under extreme conditions, from the formation of the quark-gluon plasma in relativistic heavy-ion reactions to the production of superheavy elements. Topics include signatures of the relativistic heavy ion reactions that probe the early stage of the collisions when the quark-gluon plasma is expected to form; considerable interest in the possibility of "jet-quenching" by the quark-gluon plasma has been developed by the LBNL theory group.

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding

The experimental program in nuclear physics at LBNL, supports and provides leadership in areas identified as priorities in the ongoing 2001 Nuclear Science Advisoty Committee (NSAC) long range planning process. The LBNL researchers are leading the way in the study of nuclei at extreme conditions, including high spin and excitation energy with Gammasphere, and are leading the United State's effort in the development of the next generation of gamma-ray detector arrays. This effort has pointed the way world-wide for the study of nuclei at extreme conditions, and has helped define the field of low-energy nuclear physics. The STAR detector at RHIC is being used for investigating hot, dense nuclear matter with the hope of discovering the quark-gluon plasma, a top priority research direction for the international nuclear physics community. The nuclear theory group addresses a broad spectrum of nuclear physics, and fosters international exchange by a strong visitor program. Their theoretical developments are playing a significant role in interpreting data from the new facilities. This work is clearly important for the accomplishment of the mission of the Division of Nuclear Physics, to study the strong interaction through the quantum many body problem and the fundamental constituents of nucleons. In addition, a small group of LBNL scientists play a significant role in the national nuclear data effort that provides evaluated nuclear structure and decay data to the basic research and applied physics communities.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

The operation of the 88-Inch Cyclotron continues to provide significant research opportunities in nuclear physics, providing about 5000 hours of beam time with a wide range of stable beams. LBNL provides the beams, instrumentation and infrastructure to carry out research efforts of many kinds; it is currently the host to Gammasphere, a powerful instrument for investigating nuclear structure. LBNL researchers have developed a concept for an even more powerful gamma-ray tracking spectrometer, Gamma Ray Tracking Array (GRETA), and are carrying out the necessary research and development

for this new instrument. In KamLAND, the laboratory is contributing to electronics development and calibrations tools.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

The scientific staff has shown substantial insight into the identification of the important questions in nuclear physics, and developed the initiatives to address them. LBNL staff members are providing both formal and informal leadership in a number of areas important to the national program. Dr. James Symons is the current chairman of the DOE/NSF Nuclear Science Advisory Committee (NSAC) that is presently in the midst of developing the next Long Range Plan for the community. A committee under the leadership of Dr. Jay Marx provides guidance to the DOE Division of Nuclear Physics on R&D for the proposed Rare Isotope Accelerator. Both Dr. Marx and Dr. Claude Lyneis served on the 1999 NSAC Isotope Separator OnLine (ISOL) Task Force that established the optimal technical design of the Rare Isotope Accelerator (RIA) facility.

The Laboratory has done an outstanding job in presenting the results from its research programs in publications and in scientific meetings; the Laboratory has also done an excellent job in disseminating its results through the Office of Scientific and Technical Information (OSTI).

Performance Area: Computing Sciences

FY 01 Overall Performance Summary*:*

Computing Sciences and network research continues to be **outstanding** at Lawrence Berkeley National Laboratory and cuts across all that is done at the Laboratory. LBNL is commended for developing and maintaining the National Energy Research Scientific Computing Center (NERSC), the premier high performance center in the United States for unclassified computing and probably the world. LBNL's Applied Mathematics Research Program provides research into computationally intensive techniques for solving complex mathematical problems. The Laboratory Technology Research (LTR) office continues to show leadership, creative thinking, and study of critical scientific questions requiring high quality scientific results. NERSC continues to be an extremely powerful computing environment incorporating high performance computing capability, capacity and storage resources. Also, NERSC is the Center for Computational Science and Engineering which addresses high-resolution numerical methods for advanced modeling and problem solving in areas such as computational fluid dynamics. The Energy Sciences Network (ESnet) is the backbone of the Department of Energy's (DOE) research network. ESnet provides access to NERSC computing environment and to other research, experimental and computational facilities, for scientists across the nation and by international collaboration. LBNL is also in the forefront of DOE's Scientific Discovery thru Advanced Computing program for the development of a new generation of tools and technologies for scientific computing.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Outstanding

Applied and Computational Mathematics

This is one of the strongest applied mathematics efforts in the nation. Work at LBNL continues to produce significant new understanding of fluid turbulence. Work on level set methods and fast marching algorithms has been used in fields ranging from fluid mechanics to semiconductor manufacturing to robotics. Work on adaptive grids and problems of fluid turbulence coupled with chemistry have yielded significant new insights into combustion.

In FY2001 the Mathematical Information and Computational Science (MICS) program funded one major effort at LBNL-Data Intensive Computing. This effort addresses a broad range of important technical issues in scalable and distributed software infrastructure for effective and efficient access to and analysis of large data sets. In FY2000, a small effort, cofunded by the National Security Agency (NSA), was initiated for the development of runtime support for Universal Parallel C. The principal investigator (PI) for this activity left LBNL, and we anticipate additional funding in FY2002 to the University of

California/Berkeley to continue this activity. LBNL received new funding in FY2001 for three Computing Sciences (CS) Scientific Discovery thru Advanced Computing (SciDAC) Integrated Software Infrastructure Centers (ISIC): High-End Computer System Performance, Scalable Systems Software, and Scientific Data Management, and for one new CS Base program on benchmarking high performance systems. These activities are too new to evaluate. The following assessment is based entirely on the data intensive computing effort at LBNL.

The PI in the area of large scale scientific data management, is widely recognized as a technical leader. This recognition includes receiving the Hottest Infrastructure Award at SC2000 (a collaborative effort with several institutions). The effort has a strong record of both publications and software that has significantly advanced the state of the art.

Over the past four years, LBNL has been actively involved in a number of technology Research and Development (R&D) projects, the pilot collaboratories and the Advanced Computational Testing and Simulation (ACTS) Toolkit efforts that were initiated under the Department of Energy (DOE) 2000 program. They continue to be involved in the follow-on National Collaboratory program. The work done by LBNL is outstanding and the contribution to the MICS program in the respective project areas is very valuable.

An example of leadership is the formation of the Grid Forum, a forum where individual researchers and practitioners working on distributed computing, or "grid" technologies meet as a community and focus on the promotion and development of Grid technologies and applications through the development and documentation of "best practices," implementation guidelines, and standards. A key LBNL manager was instrumental in driving the formation of this forum and serves as a member of the steering group. A number of LBNL staff members are key leaders in the various research and working groups.

The distributed security architecture is an example of a project with wide applicability and interest. Akenti is an access control mechanism designed to be flexible and easily controlled in providing strong access control to distributed resources. It relies on commercial products where possible, building on these to meet the specific requirements associated with scientific research. It is well coordinated with other related efforts in the department as well as outside and the leadership shown in developing this keystone for enabling successful collaboratories is highly respected. Akenti has been released as a research prototype to friendly users both inside and outside the department.

Laboratory Technology Research (LTR)

LBNL continues to study very important scientific questions and produce high-quality scientific results. An example is a project to improve the understanding of the fundamental mechanism of radiative carrier recombination in group-III nitride thin films, emitting in the green, blue, and ultraviolet region. Another project is exploring energetic (self-ion-assisted) deposition as an alternative deposition process for the formation of visually transparent, infrared reflectors. The project will focus on the deposition process from a fundamental point of view by investigating the effect of greater energy of the depositing material on film properties of interest. LBNL researchers are also developing thermal analysis and modeling

tools specifically designed for the photonics and optical-networks industries that would allow optimization over the full range of design parameters.

LBNL has shown great interest in the submission of FY 2001 proposals to the LTR program. The laboratory submitted ten proposals for Rapid Access Projects (RAPs) and eight for multi-year projects. Four of the RAPs were funded, and three of the multi-year projects (the second most of the laboratories) were supported.

National Energy Research Scientific Computing (NERSC)

NERSC is primarily a provider of high performance computing resources for scientists and engineers performing research and development relevant to the missions of the Department of Energy. In FY2001, NERSC provided these services to approximately 2,000 users. The research enabled by NERSC is outstanding. A portion of the NERSC Center staff either collaborate or are directly involved in research efforts. The NERSC Center is the premier High Performance Center in the United States (US) for unclassified computing and probably the world. It also is usually within the top 5 largest unclassified computing centers in terms of compute resources.

Energy Sciences Network (ESnet)

ESnet continues to be a recognized leader in networking for the scientific research community. It supports a research community numbering in the thousands, both domestically as well as internationally. ESnet enables the DOE science mission to excel in the time of rapid prototyping and deployment by providing the required reliable connectivity to the DOE scientific community.

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding

Applied and Computational Mathematics

The applied mathematics research focuses on problems that are important to DOE missions. In addition, many of these results have generated significant commercial interest. The effective management of massive scientific data sets arising from both experiments or computational simulations is recognized as a major priority in many Office of Science programs including analysis of particle physics experiments, global climate simulation and analysis. Partnering across science and technology programs is an important element to the structure and goals of the MICS program that supports these projects. LBNL fully supports this partnering and provides effective championing of this goal withi the broader community.

Laboratory Technology Research (LTR)

LTR projects strongly support national needs and DOE missions. These projects include development of diamond tools to be used in micro- and nano-machining operations using scanning/probe technology; development of an advanced detector for powder diffraction analysis which is capable of supporting event rates more than three orders-of-magnitude higher than existing systems; and demonstration that negative heavy ions can be efficiently produced in quantities sufficient for industrial ion implantation applications.

Another successful project has developed two new biocompatible materials for contact lenses. One of the materials is so biocompatible that it can be worn indefinitely. The project improved the knowledge of the biochemistry on the surface of the corneal cells, identified compatible molecules for placement onto the lens surface, and developed chemical species to introduce those molecules onto the surface of the lens in a controlled manner. The technology developed in this project can also be applied to bioreactor design for energy efficient synthesis of chemical products.

National Energy Research Scientific Computing (NERSC)
As one of the world's largest unclassified high performance computing facilities (in terms of resources) and with a policy to support research and development pertinent to the DOE missions, the relevance to a DOE missions is assured. A small portion of NERSC resources are open to investigators funded by sources other than the DOE to broaden the user base and to ensure the use of NERSC resources to meet needs that support DOE science, as well as other national science objectives. The NERSC Center also supports the US industrial competitiveness and national technology needs. Numerous computational simulations run on NERSC probe advanced energy systems, concepts and utilization. Also, NERSC interacts closely with the vendors of the high performance computing systems. NERSC computer hardware systems are typically the first-of-its kind, when acquired. However, the basic building blocks of these systems consist of commercially available computer hardware.

Energy Sciences Network (ESnet)
The ESnet is a critical item to the DOE scientific research, computing, and nuclear stewardship missions. With the increasing use of computers, from desktop PC, workstations, to supercomputers, collaborations have become paramount to accomplishing the DOE mission. ESnet provides the mechanism for DOE to enable worldwide collaborations and data exchange, whether it be simple email, or massive accelerator data sets. Its ease of use and reliability, as well as being on the leading edge of technology, has made it a critical component for the DOE mission.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

National Energy Research Scientific Computing (NERSC)
The NERSC Center has met all expectations of the user community in providing both vector and massively parallel resources as well as the High Performance Storage System (HPSS) capabilities to the scientific community. NERSC conducts annual user surveys and performs self-assessments of the quality of its services and systems (The most recent Self-Assessment, LBNL-47712, was published in April, 2001.)

LBNL submitted a proposal for the management and operation of the NERSC Center for FY2002-2006. Many features of the proposal build upon key NERSC Center strengths;

enabling the advancement of high-quality DOE science, providing a broad user base with high-performance scientific computing resources and services, and working closely with computer vendors to ensure that future system upgrades can be achieved cost-effectively. The proposal is currently under peer review. A decision is scheduled to be made early in FY2002.

NERSC has an excellent acquisition group and has worked closely with DOE-Oakland on acquisitions of computer systems. NERSC uses the 'Best Value' approach to acquisition based on benchmarks developed from actual user codes, as well as traditional benchmarks known throughout the industry. The most recent acquisition of NERSC hardware, the NERSC-3 Phase 2 system, proceeded smoothly although some minor delays were experienced which impacted the schedule for accepting the machine by several months.

Energy Sciences Network (Esnet)
ESnet is a critical item in the development and technical operations of the DOE research facilities. ESnet enables the high speed exchange of the research data from these facilities not only within the DOE community, but also with other federal agencies, industry, universities and worldwide research partners. ESnet has shown, over the long haul, that it is capable of meeting the performance objectives needed by the DOE research community and the major research facilities. The user satisfaction, as evidenced at the face to face ESnet Steering Committee (ESSC) meetings and the ESnet Site Coordinating Committee (ESCC) meetings, is a tribute to the technical development and operation of this major facility.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

Applied and Computational Mathematics
This is a basic research program; however, LBNL has been effective in collaborations with researchers at other DOE facilities and industry. The mathematicians have also been successful in establishing collaborations with users of these technologies. The PI is an effective research manager who does an excellent job of coordinating research activities, meeting schedules and keeping MICS informed. The SciDAC data management effort was carefully designed to compliment base activities.

Projects involve planning across multiple organizations. This is done well and appropriate milestones are met. From a management perspective, the performance is outstanding. Strong leadership from LBNL's participation has been invaluable in helping maintain a cohesive collaboratory effort across all the R&D projects, the pilots and the ACTS projects. With the completion of the R&D and pilot projects, the planning was evident in the proposals submitted to the next phase of the National Collaboratory program. Collaborative activities within DOE are a positive contribution and LBNL interfaces well with others in the research community outside of DOE, who are pursuing R&D in the same or similar areas.

Laboratory Technology Research (LTR)

The LTR office continues to show leadership and creative thinking regarding the LTR program. As an example, the office took the initiative to organize the annual LTR Managers meeting in Germantown, including producing several drafts of the agenda and inviting a speaker from the National Coalition for Advanced Manufacturing. The office has been very responsive to the requests from DOE headquarters concerning conduct of the LTR program.

National Energy Research Scientific Computing (NERSC)

The NERSC Center management and organization have done an outstanding job managing computer resources and providing services within available budgets. Cost-effectiveness is high and is expected to remain so. However, the costs to retain existing staff and attract new staff as needed, are introducing stresses to the NERSC Center budget. Innovative management proposals and solutions may be needed soon.

Energy Sciences Network (ESnet)

Although ESnet personnel provide excellent programmatic performance and have great success in meeting the technical and scientific objectives, the short and long range planning and feedback to DOE could use some improvement. Specific areas recommended for improvement are generally centered around ESnet taking a proactive approach to: keeping the DOE involved in the loop on transition planning and current status on a frequent basis, advising the DOE of any potential problems and changes in schedule, providing DOE information on personnel changes that may affect budgets, and developing a written operation plan and disaster recovering plan and providing a copy to DOE. Many times DOE personnel are required to answer detailed questions on very short time frames and having ESnet take a proactive approach would assist in this endeavor since, due to the differences in time zones, it is not always feasible to have the luxury of e-mail or phone call exchanges with ESnet personnel

Performance Area: Fusion Energy Sciences

FY 01 Overall Performance Summary:

Lawrence Berkeley National Laboratory (LBNL) has done an **outstanding** job as the lead for the Office of Fusion Energy Sciences' (OFES) Inertial Fusion Energy (IFE) program. The LBNL management has shown leadership as exemplified by their collaboration with Lawrence Livermore National Laboratory and the Princeton Plasma Physics Laboratory (PPPL) on the Virtual National Laboratory (VNL) for Heavy Ion Fusion. They have demonstrated vision in carrying out long range planning, and strong support for the program. With future fusion energy budgets uncertain, LBNL leadership through the VNL has done careful planning for near term research and has identified near term scientific milestones in much-improved field work proposals and other documents made available to OFES. This will allow an orderly progression of accomplishments to be demonstrated. The new director of the VNL has brought new insight and leadership to the program.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Outstanding

The development of heavy ion drivers for IFE has been led by LBNL for many years. This leadership has been recognized by both national and international scientific communities with interests in fusion energy. The scientific quality of the research carried out in the LBNL program is **outstanding**. Lead papers presented at international conferences and symposiums are recognition of this excellence and also contribute to assuring that results are generally available to the scientific public.

The scientific effort carried out at LBNL is coordinated through the Virtual National Laboratory (VNL) for Heavy Ion Fusion. This agreement now involves three laboratories (LBNL, LLNL and PPPL). The VNL will contribute to better inter-lab coordination in carrying out IFE tasks and should result in better programmatic planning. IFE technology tasks are coordinated through the Virtual Laboratory for Technology that has both IFE and Magnetic Fusion Energy components.

The work being done at LBNL combines the scientific aspects of the behavior of heavy ion beams, which are non-neutral plasmas, with the engineering concepts of accelerator technology germane to a realizable driver for IFE. These two aspects of the LBNL effort are tightly coupled. A notable FY 2001 achievement is the completion of the high current experiment at LBNL. This was done within very tight budget constraints and in a way that will allow experiments to be done early in FY 2002.

Progress continues to be made in the complementary task of developing end-to-end simulation of heavy ion driver systems. This work is closely coupled with other researchers in the IFE community as well as the broader accelerator community. There has been a consistently high degree of innovation in addressing IFE problems, and is being facilitated by the availability of ever-increasing computational capabilities.

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding

Inertial fusion energy research at LBNL is in direct support of DOE and Office of Science goals. Because of the importance of making fusion energy cost effective and reliable, LBNL has been working with industrial, university and other laboratory partners in identifying accelerator components for which long range scientific and technical developments can have significant cost and performance impacts. Through their leadership role for IFE, they have contributed to a more cohesive program involving national laboratories under the VNL and the mix of laboratories, universities, and private sector carrying out technology tasks.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

A long-term goal of recent IFE research has been directed at providing the basis for an accelerator-based program called the Integrated Research Experiment (IRE). The main component of this experiment would be a heavy ion accelerator, but several elements of an IFE power plant would be studied in this facility. These elements include the scientific basis for a full-scale driver, validation of beam target interaction physics and exploration of areas of target physics. LBNL, through their institutional plans and field work proposals, has proposed a series of individual experiments that would provide the scientific and technical basis for an IRE. This type of detailed and careful planning is necessary within the context of the goals of the fusion energy program. The path along which DOE would proceed to consider construction of an IRE is unclear, because of funding and other considerations, but the scientific work carried out at LBNL, (and LLNL and PPPL within the VNL) is preparing the basis for such a program. An important new step in the path to an IRE, is the preliminary work directed toward an advanced accelerator experiment that would draw on experimental (and associated theory and modeling advances) results from the high current experiment.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

The IFE program at LBNL has responded positively to restructuring of the fusion energy sciences program since FY 1996, as well as significant funding fluctuations prior to this

time. The leadership of the program has responded to these conditions by maintaining focus on critical, long-range elements of the program. In FY 2000, there was a significant increase in funding for the IFE program. The leadership at LBNL (and elsewhere) responded very well to this increase and a well- coordinated program in IFE was put in place. In a series of planning meetings and peer reviews carried out this year, it has been made clear that realistic planning for the IFE program is and will be developed by LBNL and the VNL. The fieldwork proposals submitted this fiscal year have been much improved. One delayed element that should be addressed as soon as possible, is the formation of a Program Advisory Committee for the VNL. Communication between the members of the VNL and OFES was excellent during FY 2001.

Performance Area: Biological and Environmental Research

FY 01 Overall Performance Summary*:*

The Lawrence Berkeley National Laboratory fulfills the Departments' mission in various fields of research. The Laboratory's Life Sciences Division plays an important role in investigating the basic mechanisms of human disease. The Division has established a preeminent position in four specific areas of human disease research: coronary artery disease; the biology of breast cancer; metabolic studies of neurological diseases; and disorders of red blood cell formation. These studies entail a spectrum of disciplines: high throughput genomic sequencing; molecular cytogenetics; cellular differentiation, growth, aging, and carcinogenesis; hematopoiesis; subcellular and macromolecular structure; diagnostic and functional imaging; radiation biology; nuclear and molecular medicine; and the development of bioinstrumentation.

Overall, the Laboratory's performance was OUTSTANDING in FY2001.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Outstanding

Lawrence Berkeley National Laboratory's (LBNL) Life Sciences research has had a significant impact on the scientific community during the current rating period. As part of the DOE Joint Genome Institute, LBNL contributed leadership and scientific expertise to the sequencing of human chromosomes 5, 16, and 19. Additionally, LBNL scientists made substantial contributions to the DOE Low Dose Radiation Research Program and to our understanding of the role that tissue complexity plays in overall gene function and the biological response to the environment.

The Medical Sciences Division's program in the areas of structural biology facilities and research, radiopharmacueticals development, medical imaging instrumentation, accelerator-based neutron beam, and clinical feasibility studies of basic science technologies for potential human use, generally have met the high standards of panel and peer-review, have excellent track records of productivity and scientific publications, and are well-regarded nationally and internationally. All programs, including the crystallography at the Advanced Light Source, are achieving outstanding productivity.

In the Environmental Sciences, LBNL has maintained an outstanding level of performance. LBNL's performance and contributions in the Air Radiation & Measurement Program and the Natural & Accelerated Bioremediation Research Program has been highly effective. The quality of the ocean carbon sequestration research at LBNL has been excellent. The program to develop particulate organic carbon (POC) and particulate inorganic carbon (PIC) sensors and deploy them in autonomous probes will provide valuable data regarding ocean carbon budgets.

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding Outstanding

Overall, LBNL's Life Sciences research contributes substantially to DOE mission and national needs. LBNL's genomics research contributes broadly to biotechnology research, beyond the direct benefits that come from its role in sequencing the human genome. Biotechnology research is becoming increasingly important and a realistic and cost-effective strategy for developing solutions for clean energy, environmental cleanup and carbon sequestration. LBNL's Life Sciences research also contributes to the science base that will underpin future development of radiation risk regulatory policy. Finally, LBNL research continues to make seminal contributions to the important, but understudied field of gene regulation and function at the tissue level, information that will have significant impacts in medicine and radiation risk regulatory policy.

The Medical Sciences Divisions' programs at LBNL's Functional Imaging Center support nuclear medicine research including positron emission tomography (PET). These imaging technology development activities promote the Department's mission to develop applications of radioisotopes for diagnosis and therapy, and structural biology research stations at the Laboratory's Advance Light Source (ALS). All of these projects offer to improve health care and enable progress in biomedical research in the country. The crystallography and spectroscopy programs at the ALS are highly supportive of the Office of Science programs and major national research programs. The compact tandem accelerator will have the capability to deliver the highest quality epithermal neutrons for Boron Neutron Capture Therapy within the shortest treatment, among all accelerators considered by various research groups in the country.

Research in Global Change is one of DOE's (and NASA's) priority research areas, and LBNL's work in ocean sensor development will be valuable in quantifying carbon in the oceans and providing insights into oceanic carbon cycling and sequestration potential.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: NA

N/A

Criteria 4: Programmatic performance and planning
Rating: Outstanding

LBNL continues to have strong management for its Life Sciences research. They have made substantial contributions to the development of broad research goals and strategies for the DOE Genomes to Life program.

LBNL's Medical Sciences Divisions' program at the Center for Functional Imaging and at the Advanced Light Sources, are generally well managed. The investigators forged successful intramural and extramural collaborations for effective management and productivity of research programs, and optimum use of resources and facilities.

Management of the DOE Ocean Carbon Sequestration (DOCS) Center, managed jointly by LBNL and the Lawrence Livermore National Laboratory (LLNL), has been somewhat unsatisfactory. Planning for an ocean carbon sequestration research program, and synergies beyond the technical work of the individual participating institutions, were not realized as expected. No satisfactory management plan for the center has yet been provided to DOE-HQ even though HQ provided comments on earlier versions to LBNL. The DOCS co-director at LBNL was not responsive to a September 2000 HQ request for responses to recommendations by a review panel.

Conclusions & Recommendations:

Overall LBNL continues to perform at an OUTSTANDING rating.

Senior Laboratory Management should quickly address and correct the concern for the lack of proper management at the Ocean Carbon Sequestration Center. Currently the center provides very little value in coordinating and integrating the various research projects.

Performance Area: Energy Efficiency & Renewable Energy

FY 01 Overall Performance Summary*:*

Overall Lawrence Berkeley National Laboratory's (LBNL) performance was Excellent. The actual rating reflects the contractually available adjectival rating. LBNL is a leader providing high quality science for DOE. LBNL's program meets the needs of DOE HQ roadmaps and energy conservation/efficiency mission. The Laboratory showed flexibility in modifying its research to accommodate programmatic needs. LBNL continues to show scientific leadership, strength in managing its technical and scientific resources, responsiveness to DOE's programmatic goals and needs, and effectiveness in technology transfer, all performed in a cost-effective manner.

Overall Performance Rating: Excellent

Criteria 1: Quality of science:
Rating: Outstanding

EC0904 (Equipment Material Research & Development) The program is historically more applied than basic research. The recent programs have shifted towards a more basic research and development and the activities and scientific contributions are encouraging.

EC0902, 0903, 0904, (Design Tools) LBNL is a leader among research organizations. The Building Technology State and Community Programs work focuses on research rather than basic science. Quality is consistently high.

EC0904 (Windows Research & Development) The quality of science as measured by peer reviews was consistently ranked in the higher performance categories. This quality continued this year.

Criteria 2: Relevance to national needs and agency mission
Rating: Excellent

EC0904 (Appliance Standards) LBNL has been very flexible and adaptable in meeting the accelerated schedules for the priority rulemaking.

EC0904 (Equipment Material Research & Development) LBNL leadership in building research is very important to the overall mission of DOE. Buildings represents a significant percentage of the total end use of electricity and is characterized by its relatively low system efficiency. The program should consider a targeted approach to work on building energy problems that yield the most benefits.

The outstanding developments of high performance materials and products that were picked up by industry have greatly improved the quality of the built environment.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: N/A

Criteria 4: Programmatic performance and planning
Rating: Excellent

EC0904 (Equipment Material Research & Development) Annual plans are relatively weak and continue to need better long-range planning

EE-10 (Power Technologies) Performed outstanding work related to published reports, program reviews, management of subcontracts, publishing the Department of Transportation's Transmission Reliability Multi-year Program Plan, and utilizing a board of National electricity industry experts to review and guide the program.

EC0904 (Appliance Standards) Goals and milestones were accomplished on schedule and within budget.

Performance Area: Civilian Radioactive Waste Management

FY 01 Overall Performance Summary*:*

Lawrence Berkeley National Laboratory's (LBNL) technical role in the Yucca Mountain Project is outstanding.
LBNL has significant involvement in the needs DOE's national needs and missions.
LBNL's planning products are consistently on the highest quality and are delivered per schedule.
LBNL has improved their Quality Assurance based on last year's suggestions for improvement.
LBNL demonstrated excellent performance by having all of their models judged to be properly validated during independent review.

Overall Performance Rating: Outstanding

Criteria 1: Quality of science:
Rating: Outstanding

LBNL technical role in the Yucca Mountain Project (YMP) is **outstanding**. As the lead organization for characterizing the unsaturated zone for YMP, LBNL is outstanding in addressing the unprecedented technical challenges of characterizing the performance of the unsaturated zone. The studies under LBNL are state-of-the-art, and LBNL has been outstanding in its innovation in testing and modeling to gain insights. LBNL is always looking to do the best job that can be done, and is very active in trying to solve the next problem or address the next issue. Because many of the issues of the YMP crosscut several technical disciplines and organizations, DOE staff needs to obtain input and leadership from any number of organizations. Frequently, LBNL is looked to first for input. Examples include thermal testing, seepage testing, coupled processes, interactions with Russia, and the treatment of uncertainties in YMP performance assessments. Regarding the treatments of uncertainties, LBNL analyses contained in the Supplemental Science and Performance Analyses were excellent, despite a compressed schedule. Not only is LBNL looked to, they frequently bring issues and solutions to the attention of DOE. The science conducted on the YMP is highly visible, and there are numerous public interactions with the review groups, including the Nuclear Waste Technical Review Board, the Nuclear Regulatory Commission (NRC), the Advisory Committee on Nuclear Waste, and the National Academy of Sciences. In many of these meetings, LBNL plays a key role. Of particular note here is the LBNL contributions to the numerous technical exchanges with the NRC in which they provided well received technical input. LBNL has also been an outstanding leader in scientific publications, once again spearheading the development of an entire peer-reviewed scientific journal issue dedicated to studies at Yucca Mountain.

With respect to quality assurance (QA), the implementation of the QA program appears to be very good. Effective implementation of the QA program has resulted in good, sound quality science.

The Yucca Mountain Project is lucky in having major participation from four national laboratories, the United States Geological Survey, and major private contractors. From amongst that esteemed group LBNL is frequently looked to by the DOE as a leader because of its history of insights, innovations, and quality products

Criteria 2: Relevance to national needs and agency mission
Rating: Outstanding

Activities that characterize and provide the technical bases for unsaturated zone flow and transport are critical to understanding the performance of a potential repository at Yucca Mountain, and LBNL has significant involvement in these efforts. Their efforts have a direct impact on the environmental goal of geologic disposal, which also has non-proliferation related aspects.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: Outstanding

The Yucca Mountain Project Exploratory Studies Facility (ESF) is a large research facility, in which LBNL, amongst other laboratories and organizations, conducts studies. LBNL's technical performance in the course of their studies in the ESF has been **outstanding**. Many of LBNL's tests in the ESF are unique, state-of-the-art, and/or innovative, and LBNL's performance in developing and implementing them has been outstanding.

Criteria 4: Programmatic performance and planning
Rating: Outstanding

The Yucca Mountain Project has many different participants, and in terms of programmatic performance, including morale, leadership, and managing interdisciplinary teams (including staff from other laboratories and Management and Operating contractors (M&O's)), LBNL is **outstanding**. LBNL planning products are consistently of the highest quality as well as being delivered per schedule. The effort in this area is outstanding. Not only does the LBNL staff produce excellent products, they do so with style and grace. Across the board, the staff members are not only hard working, but they are pleasant and cheerful. Maintaining such an attitude in a trying environment of public scrutiny and demanding deadlines is exemplary.

LBNL is outstanding in its publication and dissemination of scientific information. As mentioned above, LBNL once again has arranged for an entire journal issue to be dedicated to YMP studies, and LBNL is still the only lab to have done this. Another example of LBNL's success in communications was its role in sponsoring and holding the Third Worldwide Review Workshop on Geological Challenges in Radioactive Waste Isolation, which had participation from more than 30 countries. As with the

dedicated journal issue, LBNL is the only lab working at YMP to have ever sponsored and hosted such a review, and LBNL has done it more than once. This is not a testament to restrictions on the other labs, but instead an example of outstanding leadership and initiative on LBNL's part.
The effort that LBNL has put forth in the area of technical integration with other DOE national laboratories should continue to be a high priority. This integration effort is essential to developing a technically credible product.
The criterion also focuses on ability to execute and respond to change. In the middle of the fiscal year, the project made a major change by deciding to produce the Supplemental Science and Performance Analyses report, and LBNL did an outstanding job for their portions in responding to this major change.

One area of suggested improvement from last year's assessment, was in the area of Quality Assurance (QA). LBNL clearly got the message and demonstrated improvement and excellent performance by being the only YMP organization to have had each and every one of their models judged to be properly validated during an independent review. The reviewers noted that LBNL's success was due in part, to its initiative in seeking out the advice of the Quality Assurance organization.

With respect to QA, LBNL has set up an Administrative Staff to help the Technical Staff, however the Technical Staff is too dependent on the Administrative Staff. The Technical personnel should be more involved in the quality of products, rather than relying on the Administrative Staff. Also, software communication with the Management and Operating contractor could be improved

Also with respect to QA, each group at LBNL has been assigned a team to work on, and they appear to enjoy the teamwork and communicate often and openly. Observations at meetings and interpersonal discussions, indicate that communication within LBNL is strong and effective. A review by independent QA consultants noted, "At LBNL, a work environment that facilitated open communication and promoted teamwork was found. Without exception, individual contributors at the lowest level feel free to come to you with their concerns, (i.e. the LBNL Laboratory Lead). During the All Hands meeting, we observed an atmosphere of open communication."

More specifically for QA, there has not been an LBNL specific Deficiency Report (DR) or Corrective Action Report that has been issued over the last 3 months, however, there are some Project software DRs that have been worked due to LBNL responsibilities therein. Only one Nonconformance Reports was issued this year and it is closed. There were also 3 compliance-based audits and one performance based audit. The accumulated results were two exemplary practices, four recommendations, one positive observation, and no deficiencies.

Finally, with respect to QA, the QA On-site Representative (OSR) interface with LBNL personnel has been pleasant and effective. The OSR has considerable interface with the technical staff for review and oversight discussions. This interface is open and honest. The OSR believes LBNL personnel are up front about the status of the quality issues discussed. Deficiency conditions have been brought to their attention and they have been discussed with the OSR when appropriate. The OSR feels an integral part of the QA program at LBNL and is treated as a team member.

Performance Area: Fossil Energy

FY 01 Overall Performance Summary*:*

The breadth of the program is good and as a whole, the research is excellent

Overall Performance Rating: Excellent

Criteria 1: Quality of science:
Rating: Excellent

Significant advances have been made in projects through Lawrence Berkeley National Laboratory's researchers, in concert with researchers in academic institutions, industry. Numerous scientific, peer reviewed, technical articles have been published and presented by the researchers.

Criteria 2: Relevance to national needs and agency mission
Rating: Excellent

LBNL has industry involvement assuring research efforts that have relevance, have near-term applications and are high priority. Their activities are entirely aligned with, and are supportive of the appropriate areas of work for DOE.

Criteria 3: Performance in the technical development and operation of major research facilities
Rating: N/A

Criteria 4: Programmatic performance and planning
Rating: Excellent

LBNL has exhibited a very professional and scientific manner to working toward achieving their tasks and goals. Productivity is quite high and morale of the staff is excellent. LBNL has adapted their facilities to incorporate substantial amounts of equipment. Additional laboratory technician support is need in the Rock-Fluid Imaging Laboratory so that the researchers do not get tied down with routine laboratory activities. As the researchers begin to branch into other high potential R&D areas, the need for additional laboratory support staff will become even more critical.

Laboratory Management

Performance Area: LABORATORY MANAGEMENT

Performance Objective: #1.0 Laboratory Leadership

Laboratory leadership, in support of Laboratory missions, ensures the stewardship and viability of the institution. **(Weight = 100%)**

Note: The Gradient for each measure is shown in the attachment and the weighting between Approach/Deployment and Results is A/D=40% and R=60%.

Criteria: #1.1 Institutional Stewardship and Viability

Evaluation of Laboratory senior management's approach, deployment and results for ensuring that the institution is capable of executing its current and future missions. **(Weight = 100%)**

Performance Measures: #1.1.a Planning

Evaluation of management's approach for strategic planning that aligns Laboratory missions, core competencies, strategic direction, and funding sources with DOE strategic plans and objectives. The assessment will focus on achievement of the key objectives contained in the Laboratory's plans and how this information is reviewed with DOE. **(Weight = 14.3%)**

Performance Narrative:

Approach/Deployment

LBNL's leadership continued to build upon its strong set of planning activities in FY2001, and advanced its 10-year vision (Vision 2010). Each year the Laboratory's Director and senior-management team hold an off-site planning retreat to identify challenges, target opportunities and key management objectives, and set priorities and strategic directions built upon the Laboratory's core competencies and national role in the DOE Laboratory system. With a growing Laboratory population and aging facilities, Infrastructure and Strategic Facilities Planning remained important priorities. New planning challenges in FY2001 included Cybersecurity and Diversity Planning. Late in FY2001, the Laboratory began identifying its Counter-Terrorism capabilities in the wake of the September 11 tragedy. Several laboratory-wide planning systems are used to guide and manage the Laboratory, and to support DOE oversight and management by the University of California (UC). These include Institutional Planning; Strategic Facilities Planning; Facilities and Capital Planning; Environment, Safety, Health and Infrastructure Planning; Security Planning (including Cybersecurity); Communications Planning; Community Relations Planning; Diversity Planning; Indirect Cost Planning (including maintenance and LDRD budgets), and others. These plans are coordinated and integrated within the Laboratory through the use of a Comprehensive Planning Calendar.

DOE Interfaces: The annual Institutional Plan, Laboratory-Directed Research and Development (LDRD) Plan, Facility Plans, Project Plans, ES&H and Infrastructure Plan, field budget/work proposals, and other planning documents are communicated to and reviewed by the DOE Berkeley Site Office (BSO), Oakland Operations Office (OAK), and DOE-HQ. Laboratory Management also meets regularly with DOE officials through a variety of communications forums (see measure 1.1.b).

Mission Integration: The Berkeley Laboratory's Vision 2010 has five major components: Fundamental Understanding of the Universe, New Energy Sources and Solutions, Quantitative Biology, Nanoscience and Complex Systems, and Integrated High-Performance Computing. This vision and the Laboratory's Institutional Plan (IP) for FY2002-2006 continue to be very well aligned and integrated with the major goals of the SC Strategic Plan and Science Portfolio: Explore Matter and Energy, Fuel the Future, Protect Our Living Planet, Provide Extraordinary Tools for Extraordinary Science, and Manage as Stewards of the Public Trust.

External Collaborations: LBNL continued strong support to DOE's integrated system of laboratories by contributing expertise, especially in accelerators and detectors, and collaborating in major DOE projects and research activities at other DOE labs and around the world, including:

- Spallation Neutron Source (SNS) at ORNL
- Dual-Axis Radiographic Hydrodynamic Test (DARHT) facility at LANL
- Asymmetric B-Meson Factory at SLAC
- Relativistic Heavy-Ion Collider (RHIC) facility at BNL
- CDF and D0 detectors at Fermilab
- Supernova Observations at the Keck Telescope (Hawaii)
- ATLAS detector for the Large Hardron Collider (LHC) at CERN (Switzerland)
- Sudbury Neutrino Observatory (SNO) (Ontario)
- Antarctic Muon and Neutrino Detector Array (AMANDA) at the South Pole
- Yucca Mountain Project (YMP) for fission reactor waste at the Nevada Test Site

- DNA sequencing at the DOE Joint Genomics Institute (JGI)/Production Genomics Facility (PGF) – a collaboration with LLNL and LANL.

Results

LBNL's planning and leadership efforts resulted in a number of scientific and operational successes that contributed to achieving DOE objectives in FY2001. Some FY2001 program highlights include:

- Planning and technical development of the "Molecular Foundry" project which was successfully peer-reviewed by the SC Office of Basic Energy Sciences (BES) and on-track to become among the first DOE facilities constructed under the National Nanoscience and Technology Initiative;
- Continued expansion in the user base and scientific productivity of the Advanced Light Source (ALS) to 1200 users;
- Successfully relocating the National Energy Research Supercomputing Center (NERSC) to the Oakland Scientific Facility and expanding its peak capacity to 5 teraflops, making it the largest unclassified supercomputer in the world;
- Further development of a path-breaking astrophysics program, particularly the proposed Supernova Acceleration Probe (SNAP) satellite, to measure fundamental properties of the universe;
- Utilizing the Joint Genome Institute (JGI)/Production Genomics Facility (PGF) for the DNA-sequencing of numerous microbes, fugu fish, sea-squirt, and working to finish the sequencing of its part of the public Human Genome Project (chromosomes 5, 16, 19);
- Significant initiation of a design for an advanced Energy Efficiency and Electricity Reliability (EEER) laboratory – proposed to the DOE Office of Energy Efficiency and Renewable Energy (EERE) for a facility that would provide space, integration, and the first EERE "showcase" facility at LBNL;
- Development of several useful websites to assist the State of California during the western regional energy crisis; critical geological analysis and other contributions to the DOE Yucca Mountain project during the final year of scientific characterization of the site as a potential national repository for high-level radioactive waste from the Nation's commercial nuclear reactors.

FY2001 Operational highlights included:

- Initiation of a campaign to modernize the Laboratory's Engineering and shop/fabrication enterprise;
- Resumption of a decline in Laboratory accident/injury statistics following special focus by a joint LBNL-DOE management team;
- A DOE-HQ Environmental Review during FY2001 reached positive conclusions;
- Preparation of a more detailed cost-estimate for the Bevatron Decontamination and Demolition (D&D) project (estimated cost $60-85M, depending upon material recycling options), and secured some new resources to allow incremental progress in FY2002;
- Commencement of environmental sampling for possible tritium contamination onsite after community consensus was brought through the Environmental Sampling Task Force;
- Proactive development of an Integrated Safeguards and Security Management (ISSM) Plan modeled after the line accountability approach used successfully for Integrated Safety Management (ISM); successful implementation of a Cyber-Security Program Plan; hosting a visit by the Hamre Commission, chartered to advise the national leadership on the balance between science and security;
- Notable new institutional initiatives were pursued to instill diversity as a value and practice through Division-level Diversity Plans;

- Reorganization and elevation of Laboratory's Public Affairs Office; launch of multiple new public outreach and education efforts under its Community Relations Plan;
- Continued overall decline in laboratory indirect (overhead) rates, especially notable at a time when new DOE and Congressional requirements are being implemented, and the need for infrastructure investments is growing;
- Commencement of a Best Practices Pilot Study for the management, operation and administration of federal laboratories in partnership with the BSO and OAK, and at the request of the DOE Undersecretary and a DOE Laboratory Operations Board Study Team.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #1.1.b Establishing and Communicating Performance Expectations

Evaluation of management's effectiveness in establishing and communicating performance expectations. Assessment will focus on communication with Laboratory line management and senior management at the DOE Headquarters, Operations Office, and UC that reinforces performance goals.

(Weight = 14.3%)

Performance Narrative:

Approach/Deployment

Berkeley Laboratory leadership communicates with DOE at all levels, UC, internal staff, and key constituencies across a broad range of programs and functions to effectively establish and communicate performance expectations. Numerous formal and informal means and forums are used to accomplish these objectives. The Laboratory remains performance/results-driven, committed to continuous quality improvement, and supportive of partnering with DOE and external stakeholders. The DOE-UC contract Appendix F performance assessment process is utilized effectively as a means to further performance improvements and focus interactions with DOE, UC, and others.

Customer/Stakeholder Engagement: LBNL management continues to support the importance of partnership and proactive engagement with the Laboratory's external customers and stakeholders, including DOE (HQ, OAK, and BSO), other DOE laboratories and research institutions across the U.S. and around the world, and the local community. There are effective, standing communication forums between the Laboratory Management and DOE (HQ, OAK and BSO), between Laboratory Management and UC, and jointly between the Laboratory, UC and DOE. These forums facilitate two-way communications on policies, funding, operational issues, progress/plans, and other matters that impact programs, projects and/or the institution. These include: the Director's participation in Laboratory Directors' meetings with the Secretary of Energy, the Deputy and Undersecretary, and the SC Director; the annual DOE/SC Institutional Planning On-Site Review; monthly Executive Management meetings between top Laboratory, OAK and BSO managers. LBNL senior managers also participate in a number of DOE inter-lab committees and groups dealing with laboratory operations, computing, facilities, and planning. Quarterly operational awareness meetings between ES&H officials at the Laboratory, BSO, OAK and UC continue. There are also regular teleconferences between public affairs officials in the Laboratory, OAK, and DOE/HQ. The LBNL Director, Deputy Directors, and other senior managers attend regular meetings and/or are members of several UC executive-level Councils and Groups.

Internal Communications: Within LBNL, Laboratory leadership uses several mechanisms and forums to convey priorities and expectations within the Laboratory. Communications with line managers and division management occurs through regularly scheduled meetings including: weekly Director's Action Committee (DAC), biweekly Operations meetings, and quarterly division directors meetings. Various venues are also used to communicate directly with employees, including: Director Shank's annual State of the Lab address which highlights past progress and future directions, topical forums hosted by the Director or Laboratory Managers (sometime webcast); dissemination of "level-1" e-mails to all employees, notifications of changes to the Laboratories Regulations and Procedures

Manual (RPM), senior management messages transmitted via the Lab's bi-weekly *Currents* newspaper and in the weekly *Headlines* electronic newsletter, and ever-increasing use of the Lab's webpage and network. Performance expectations formally reach individual employees through the Laboratory's personnel system: a well-established process for Performance/ Progress Review (P2R) is used between all supervisors and staff to annually convey expectations and assess individual performance.

Results

Scientific expectations were achieved through successful operation of major detectors and experiments fielded by the Laboratory including: the STAR detector examining quark-gluon plasma at the BNL RHIC experiment; measurements of charge-parity violation among B-mesons using the BaBar detector at the SLAC B-Factory; finding evidence of solar neutrino oscillation at SNO; technical development of the concepts for the Molecular Foundry and SNAP satellite. In August 2001, LBNL hosted a review of R&D activities for the DOE Assistant Secretary for Energy Efficiency and Renewable Energy (EERE), including work for the California Energy Commission (CEC), and a proposed first EERE facility at the Laboratory (TEC~$23M).

LBNL reorganized its public and community outreach activities, including public information, government and community relations, and science education. A new, elevated Director of Public Affairs position was established to reinvigorate communications and relationship-building, both internally and externally. The Laboratory took proactive communications steps to retract its findings on the discovery of Element 118 through a journal notice, media releases, and web information.

Following up on employee "all hands" stand-down meetings in FY1999 and FY2000, Security and Diversity were two areas that received continued attention by Laboratory management this past year. LBNL continued to interact closely with DOE to implement new security requirements appropriate for its Tier III laboratory status, and was proactive in developing an Integrated Safeguards and Security Management (ISSM) Plan as an umbrella for its physical and cybersecurity programs. Every division completed a Diversity Plan , began actions to implement it, and has made an initial report on progress (see 1.1.e). Laboratory accident/injury rates were again reduced and on a downward trajectory after much management communications and focus.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #1.1.c Stewardship of Assets

Evaluation of Laboratory management systems for making decisions that address stewardship of programmatic and institutional assets. Assessment will include the impact of planning on decision making, the use of prioritization processes, asset management, resource allocation, etc.

(Weight = 14.3%)

Performance Narrative:

Approach/Deployment

The Laboratory's unique assets include human resources, facilities, equipment, administrative and operational support systems, and LDRD funding. The LBNL Director employs a systematic approach to ensure senior management attention to unified asset stewardship. The Deputy Director for Research has responsibility for the stewardship of research program assets (scientific and engineering personnel, LDRD), and the Deputy Director for Operations is responsible for the stewardship of operational and administrative infrastructure (facilities, equipment, institutional systems, administrative and operations support personnel). The Director's Action Committee (DAC) is the Laboratory's final planning approval and decision-making group. The DAC annually reviews plans and recommends priorities in the Institutional Plan, the Strategic Buildings Plan, facility and capital resource allocation, for human resources, the level of LDRD, and indirect costs (including maintenance budgets). A second senior-level decision forum in FY2000, DAC II, is used for in-depth analyses of key issues such as space needs and diversity planning. Key annual activities that contribute to the stewardship of assets include: the field budget call and review (for research programs and projects), the corollary facilities project call, the LDRD call, review and allocation process, and the indirect (overhead) budget review. LBNL continues to uses a Risk-Based Priority Matrix (RPM) for integrated review and ranking of all capital and plant project needs.

LBNL is again recruiting nationally for a new Human Resources (HR) Director, and the Associate (to the Deputy Director) for Operations has been serving in the position on an acting basis. The HR Department undertook a number of management improvements during the year to support Laboratory strategic directions, and follow-up on recommendations from an external HR Peer Review in FY2000 and previous DOE performance appraisals. All Laboratory staff providing HR support services were organizationally consolidated into the HR Department. The Recruitment Group was fully staffed and assisting divisions in the development and implementation of their diversity plans. The resume' flow has nearly tripled in 2001. A Compensation strategy was developed based on market comparisons of the Laboratory's salary structure and pay practices, and it was used in the annual Compensation Increase Plan submitted to DOE for approval.

Stewardship of physical assets includes planning for facilities, space utilization, and maintenance. LBNL has a 10-year Strategic Facilities Plan and a Comprehensive Facilities Plan (20-year Master Plan updated every 5-years) to describe investments needed to develop land and capital assets and sustain its future scientific productivity. It has commenced preparation of a 20-year Long Range Development Plan (LRDP) and Environmental Impact Report (EIR), which is scheduled for completion in FY2002. Maintenance plans and budgets are developed annually in the context of a 5-year Maintenance Plan. An Asset Management System (AMS) is a web-accessible database used to

manage the property inventory at LBNL. A Laboratory space database (Odyssey) and a DOE database, the Facilities Inventory Management System (FIMS) are used to track all assets such as buildings, trailers, equipment, and roads, and to assist in decision-making regarding building utilization and space charges. A multi-functional, integrated resource management application named MAXIMO is used to support a plant operations functions including: work orders for maintenance, crafts and labor, purchasing and inventory management, capital equipment management and maintenance scheduling, vehicle fleet management, and others.

Results

HR: In FY2001, LBNL hired a new Deputy Director for Operations and a new Earth Sciences Division Director. Both were promoted from within. Hiring needs and retention issues continued to be addressed in the challenging areas of life sciences, computing sciences, and engineering.

LDRD: LBNL implemented its FY2001 LDRD program consistent with the requirements of DOE Order 413.2, seed funding frontier projects built upon core competencies and capabilities, and focusing on emerging opportunities and strategic directions of the Laboratory. LDRD projects continue to make strong contributions to the ALS program, scientific computing, physical biosciences, astrophysics, and other areas. General Accounting Office (GAO) reviews of the LDRD programs at LBNL other DOE laboratories in FY2000 resulted in an audit report to Congress in FY2001 that was favorable to the value and results from this program.

Site and Facilities Planning and Stewardship: LBNL continues to make outstanding use of facility plans and information management systems to steward its physical assets, identify infrastructure needs, and prioritize resource investments. LBNL developed a Strategic Buildings Plan that outlines the program research drivers and facility needs of the Laboratory over the next decade, and incorporated it into the Laboratory's Institutional Plan. The Laboratory's Comprehensive Facilities Plan remains a model within DOE. In coordination with the BSO and OAK, LBNL began planning for its first new building construction project using third-party financing and lease-back provision. A 50,000-60,000 gsf office building for ~200 occupants near the Laboratory's main entrance ("B.50-X") is envisioned. An RFP for design and construction will be issued in FY2002, with occupancy expected in FY2004. The Laboratory submitted a detailed cost estimate of the Bevatron D&D project to DOE SC ($60-85M) requesting approval for a conceptual design, and continues to pursue all means of incremental progress on this major project.

Other Stewardship Results: Energy planning and management received special focus in FY2001. Conservation efforts were strengthened and LBNL's energy consumption per square foot of building space continued its long-standing decline (down 35% since 1985). A 2MW diesel generator for backup emergency power was acquired and installed at LBNL after extensive interactions with DOE, and permitting by the Bay Area Air Quality Management District (operations limited to 494 hours annually). It will allow the Laboratory to shed up to 15% of its peak electrical load, as possible means of avoiding unplanned rolling blackouts. The FY2001 property inventory was successfully completed, but the overall results, utilizing a statistical sampling approach, declined slightly from FY2000: accountability rates achieved were 99.4% for controlled items, 98.9% for sensitive property, and a 99.9% (of acquisition value) for high-value assets (>$50K).

Performance Rating (Adjectival): **Outstanding**	95.00%

Performance Measure: #1.1.d Effective Resource Management

Evaluation of management's efforts to effectively manage funding and staff resources consistent with DOE and Laboratory goals. Assessment will focus on performance results which may include improvements in cost effectiveness such as the ratio of S&T to A&O staff, travel funds management, and other productivity or re-engineering indicators. **(Weight = 14.3%)**

Performance Narrative:

Approach/Deployment

The Laboratory Director and senior management continued to emphasize efficient resource management to maximize the funding available to execute the Laboratory's R&D missions. The Deputy Director for Operations is delegated responsibility for all operations and administrative funding and staff that support the execution of the Laboratory's mission. LBNL remains focused on overhead control and reduction. Opportunities to reengineer and streamline administrative processes and improve service while reducing overhead costs continued to be evaluated. Operations and administrative departments are now peer reviewed like the scientific divisions. At the request of the DOE Undersecretary and the Office of Science, LBNL also participated in the planning of a DOE a pilot study on best practices for the effective and efficient operation and administration of government-owned, contractor-operated research facilities. This study is being performed in early FY2002.

LBNL continues to make investments in new information technology tools, management information systems and training that have been key enablers of the indirect cost reductions since the mid-1990s. The Laboratory continued collaborations with other DOE national laboratories in pursuit of cost savings and improved cost analysis, reporting and customer service, e.g., through participation in the Financial Management System Improvement Council (FMSIC). LBNL also participates in UC business forums and initiatives such as the Tri-Laboratory "Centers of Excellence" study examining areas for potential collaboration and consolidation of services and systems. The Deputy Director for Operations provides the DAC with quarterly overhead cost tracking information and an annual overhead budget target. The DAC, with support from the Controller's Office, sets institutional indirect rates, subject to DOE-OAK approval. BSO and OAK also participate in the Director's annual budget review process.

Results

Continued Overhead Reductions: LBNL continued its seventh consecutive year of a downward trend in its institutional overhead and labor burden rates in FY2001. The general and administrative (G&A) rate was reduced by 1.4% to 19.1%, the site support rate fell 0.5% to 19.5%, and payroll burden grew by 0.5% to 36.5%. As a percentage of total operating costs, indirect costs dropped another 0.9% to 26.4% in FY2001, and down from 31% in FY1996. Composite (burdened) Labor Rates are down 2.37% in FY2001, and 12.57% since 1996. This remains a solid achievement, especially given new policy and directive requirements added by DOE and Congress in security, travel, and other areas. The Lab maintained a research to support staff funding ratio of 2.2, unchanged since FY1999.

Travel: LBNL continues to implement a travel management program, reinstituted in FY1999, to control and manage Laboratory travel costs within the annual ceiling determined by DOE. In FY2001, LBNL's actual travel costs under Energy & Water Development Appropriations (EWDA) programs were $5.36M, less than the $6.43M ceiling allocated to the Laboratory by the DOE CFO. Total FY2001 travel costs, including Interior appropriations programs and Work For Others (WFO) were $7.27M. The Laboratory has pursued travel cost savings initiatives to help mitigate the constraints on its R&D programs and mission (many active projects across the nation and the world) imposed by Congressional and DOE travel caps. These include: a state of California airfare program, promotion of online booking, and assessment of automated expense vouchering. LBNL continues to make increasing use of videoconferencing as a substitute for some travel, with several dozen videoconferences typically held each day.

Other System Improvements: In FY2001, a major new Financial Services system project was implemented to integrate three separate processes for Procurement, Receiving, and Payables (PRP) to streamline processing, improve internal controls, and provide the Laboratory with more efficient methods of planning and cost-effective operations. Last year the Laboratory's Financial Management System (FMS) was upgraded with web interface and other enhancements, and new systems were adopted for developing budget proposals (the Project Management Tracking System – imported from ORNL) and the internal budget system (Janus). The Laboratory provides training for its employees in each of these new systems. Planning was also begun for a new Grants System that will be implemented in phases over FY2002-2003, and that is intended to automate the process for development, review, DOE approval and sponsor funding of WFO proposals. Streamlined processes such as electronic data interchange (EDI), electronic funds transfers (EFT), and increased use of ProCard for small purchases continue to facilitate operational efficiencies.

Performance Rating (Adjectival): **Outstanding**	95.00%

Performance Measure: #1.1.e Diversity Leadership and Awareness Evaluation of senior management's effectiveness in increasing the awareness of diversity in all divisions of the Laboratory.

The assessment will focus on the development and implementation of diversity plans and their innovative actions to enhance the work environment for all employees and to engage in proactive methods of diversity outreach and recruitment designed to promote equality of opportunity.

(Weight = 14.3%)

Performance Narrative:

Approach/Deployment

In a June, 2000 memorandum, Director Shank established the expectation was that workforce and workplace diversity was to be a laboratory-wide objective that would be continually assessed and addressed by each division/department. Pursuant to this, division-level diversity plans were to be developed as commitments to taking substantive actions, and to meet the Director's criteria that they a) "enhance the work environment for all employees" and b) establish "methods of assuring hiring pools that are as diverse as possible." The Director's expectations were further emphasized through the addition of diversity management in the performance expectations of division/department managers, and in the inclusion of this diversity leadership measure under Laboratory Management. Laboratory managers are held accountable for actions to implement their organizational diversity plans, and assessed in this regard at the time of their annual performance reviews.

Results

LBNL has demonstrated commendable effort towards implementing its vision of "instilling diversity as a value and practice throughout the Laboratory." The Laboratory's commitment to institutionalize this value throughout all levels of the Laboratory is evident in the Director's new requirement for diversity plans for all organizations. Each of the divisions/departments prepared a diversity action plan, and each was reviewed by the Director prior to finalization and posting on the Diversity Action Plan Web Site. Most of these plans include student outreach programs to local high schools and colleges, and national minority-serving institutions, e.g., internships, school-to-work programs, and direct recruiting and hiring.

In this first year of the measure, the plans primarily addressed the means by which diversity could be improved through the hiring of women and minorities, rather than enhancement of the work environment (e.g., for mothers in the workplace). Actions identified were generally directed at the expansion or development of student programs in order to encourage students to consider careers in science and technology, as well as to view LBNL as a potential employer. An assessment of diversity plan implementation, conducted by the Laboratory's Workforce Diversity Office, validated that the divisions/departments successfully followed through on the commitments of their action plans involving outreach and recruitment. In addition, the majority of divisions/ departments provided opportunities for supervisors and/or employees to attend various diversity-oriented workshops.

Although the results of the actions may not be realized for several years, the establishment of a pipeline will help to ensure LBNL's future diversity and vitality. As the process of assessing organizational diversity matures, the department is confident that actions related to enhancing the current work environment (i.e., work-life programs) will become more apparent, as a natural reflection of a diverse workforce.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Performance Measure: #1.1.f Community Relations

Evaluation of management's awareness of public concern regarding Laboratory operations. Assessment will focus on management's effectiveness in addressing community issues in a proactive manner. **(Weight = 14.3%)**

Performance Narrative:

Approach/Deployment

LBNL management remained proactive in its community relations effort, and made efforts to increase its awareness of public concerns. Several new outreach initiatives were pursued in implementing FY2001 objectives of the LBNL Community Relations Plan. A Secretary of Energy Advisory Board Openness panel review of LBNL's community relations program was held in September 2000, and a 2-day Peer Review of Community Relations, Public Information, Government Relations and Education Outreach was convened by Laboratory Management in December 2000. Following these two major reviews, the Berkeley Laboratory refined the goals of its public affairs program and restructured its community relations program, elevating the program to a new Community Relations Office that reports directly to the Laboratory Director. In FY2001 the Community Relations Office continued to expand its role with key stakeholders in the local and regional community.

The Community Relations Advisory Group (CRAG) continued to serve as a management advisory body. The Berkeley Laboratory continues to implement an active vegetation management program, and participates in the East Bay Hills Emergency Forum to reduce the risk of wildfires. The Center for Science and Engineering Education (CSEE) continues to work in partnership with educational institutions and engage Laboratory divisions and staff in science education and outreach activities across all levels of students and teachers. New efforts are aiming to leverage limited DOE funding with larger NSF resources.

Results

In FY2001, LBNL strengthened its community relations. LBNL's leadership increased interactions and dialogue with the local community. A national search has been underway for a permanent Director of the Public Affairs Department, and the Laboratory's EH&S Director has served well in an acting capacity in this position over the past year.

Reorganization and Elevation of Public Affairs: A new Public Affairs Department was established that includes the community relations, government relations, educational outreach, and public information functions of the Laboratory. The new Director of Public Affairs reports directly to the Laboratory Director and is a standing member of the Directors Advisory Committee (DAC).

Environmental Sampling Task Force: This Task Force, 21-member community advisory group, met four times during FY 2001 and completed its review of the sampling plan for an environmental survey of tritium levels. Agreement was reached on an environmental sampling plan, and it is now being implemented. The National Tritium Labeling Facility (NTLF), the source of most tritium emissions at LBNL, is planned for shutdown beginning in December 2001 following the curtailment of funding

support from the National Institute of Health (NIH). However, sampling and any necessary cleanup will be carried out as planned.

Long-Range Development Plan/EIR: In preparing an updated Long-Range Development Plan for FY2003-2022, LBNL held a public scoping meeting on the associated Environmental Impact Report (EIR). Preparation of the LRDP and sitewide EIR will occur in FY2002.

Community Service Survey: In November 2000, LBNL conducted an internal community service survey to find out where and how LBNL employees contribute to local communities through volunteer service. Results of the survey indicated that Laboratory staff serve on over 70 boards, councils, and commissions in local government and Bay Area organizations, many of which are complementary to the Berkeley Laboratory's mission. These "Laboratory ambassadors" can assist the LBNL in building key stakeholder relationships.

New "Science on the Hill" Community Newsletter: In FY 2001, the LBNL began issuing a new quarterly community relations newsletter entitled "Science on the Hill" to over 1500 community leaders and members. Written for the lay-public, this newsletter informs readers about Laboratory research and other activities and their public benefits, including topics related to energy efficiency, human health, and vegetation management to reduce the threat of wildfires. The Laboratory might also consider posting this newsletter on its website and achieving even broader distribution by distributed electronically.

New "Did You Ever Wonder" Campaign: In August, 2001, a new program called, "Did You Ever Wonder" was implemented, disseminating information about the Laboratory, its work and some of its top researchers to the East Bay community through posters on LBNL offsite shuttle buses, a dedicated educational website, and printed materials available to schools and other meeting places. This was a very creative response to one area that the Lab's 1998 community baseline survey revealed, namely that some of the Lab's neighbors did not understand what research the Laboratory was involved in. It showcases the breadth and diversity of research and researchers at LBNL. This campaign is intended to educate the lay public about specific science topics, encourage students to pursue scientific careers, and to also serve as a recruiting tool, to invite qualified people to work at the Lab.

Energy Conservation and Supply/Demand Websites: In May 2001, LBNL announced a new energy conservation website called "The 20% Solution" developed to help consumers reduce their energy use by 20 percent or more and thereby earn a 20% rebate from the local PG&E utility. The Laboratory also developed a first-ever website that indicates live-time the supply and demand for electricity in the state of California, which is especially useful for energy planners and consumers when stage I, II, or III alerts are issued concerning the grid. LBNL participated prominently in a successful energy conservation media event at OAK announcing these new and publicly useful websites.

Center for Science and Engineering Education: CSEE continued a range of educational outreach programs for students and teachers, both locally and nationally. In FY2001, CSEE sponsored 80 undergraduate students for the summer, 25 high school interns, and 45 science teachers for curriculum training and development. New efforts are seeking to leverage limited DOE funding for science education with NSF resources. The Laboratory continues to pursue synergies between the objectives of these programs and its workforce diversity goals.

Tour Program: The tour program continues to grow in numbers of tours and participants. Lab tours averaged nearly eight per month during FY 2001, with approximately 1500 visitors participating. This is up significantly from 30 tours and 300 participants in FY 1999. Twelve graduate students and post-

doctoral associates, representing the various scientific divisions of the Laboratory, served as tour guides for these activities.

Local Assistance: In FY2001, LBNL provided energy efficiency technical assistance and advise to the City of Berkeley and the City of Oakland. The Laboratory provided a set of its newly developed "Berkeley Lamps" to COB's engineering division that will produce notable savings and serve as a test-bed for possible extension to other city operations. It assisted in monitoring energy use and identifying savings opportunities in buildings along a commercial district of the city. It conducted an energy audit of the Oakland mayor's home, and partnered with that city in the development of proposals to the state for energy retrofits on public buildings.

Vegetation Management/Hills Emergency Forum: LBNL remains active in the Hills Emergency Forum (HEF) that was established in 1991 to help prevent another catastrophic fire in the East Bay Hills. Through this forum, the Laboratory has been leading the effort to manage vegetation and reduce fire hazards. LBNL is nearing completion of an extensive vegetation management program, and has set the standard for regional practices in fire risk reduction.

EO Lawrence Centennial: August 8, 2001 marked the centennial anniversary of the birth of E.O. Lawrence, LBNL's founder. The Laboratory hosted several internal and community events to commemorate this anniversary and highlight the revolution in multi-disciplinary "big science" he started.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Performance Measure: #1.1.g Accountability and Commitments

Evidence that systems ensure major commitments are met and information on status is timely and complete and that these systems allow informed management action. **(Weight = 14.3%)**

Performance Narrative:

Approach/Deployment

LBNL management continued its effective system of line management responsibility to identify and track major commitments, assure follow-up, and allow informed management action to support implementation. Laboratory Management focuses on a culture of follow-through on commitments. The Deputy Director for Research and the scientific divisions are responsible for R&D program and project commitments. Areas continuing to receive attention by this group during the past year included the ALS, JGI/PGF, LHC (ATLAS), RHIC (STAR), B-Factory (BaBar), Tevatron (CDF, D0), SNS, and DAHRT. The Deputy Director for Operations and support division and departments are responsible for tracking and follow-up on operational and administrative commitments. Security/cybersecurity, human resources, and Bevatron D&D planning remained areas receiving special attention in FY2001. These operations and research groups hold regular meetings at which their respective open commitments are reviewed. Significant issues from these groups may also enter onto the DAC's agenda and actions tracker. The Laboratory's Office of Contract Management (OCM), under the Deputy Director for Operations, serves as the institutional contact to track and assure commitments are met regarding the prime contract for LBNL between DOE and UC. These include such M&O contract related requirements as: performance-based management requirements, institutional compliance (directives, Price-Anderson Act), make-or-buy planning and determinations, outside employment/conflict-of-interest issues, and institutional memberships.

The Berkeley Laboratory maintains several noteworthy data systems that serve both its own management commitments, and also support DOE/OAK and the BSO in their oversight roles. These include the Laboratory Corrective Action Tracking System (LCATS) for tracking commitments related to ES&H, directives/rules/contract changes and Appendix F performance appraisals, and Internal Audit Services (IAS) Department systems for follow-up actions resulting from GAO audits or Inspector General (IG) reviews. The Associate (to the Deputy Director) for Operations also started a tracker for miscellaneous operational actions such as those resulting from the Landlord Review and Laboratory Stewardship Committee, OAK-LBNL ESG meetings, et al. These systems are decentralized, non-integrated, and independently maintained.

In addition to divisional peer reviews of its scientific work, the Berkeley Laboratory now conducts periodic peer reviews of its Operations and Administrative departments as a means to achieve continuous quality improvement toward best practices. Two such reviews took place this past year (Financial Services and Administrative Services) and two more are scheduled for FY2002 (Human Resources and Facilities).

Results

Project Management: LBNL has a full-time senior project management specialist in the General Sciences group to help assure the effective oversight and management of LBNL projects (some of the major external project collaborations are listed in 1.1.a) in accordance with the requirements of a new DOE Project Management order (DOE O413.3). The Laboratory has also developed a uniform set of project management tools for scientific projects. A senior-level Project Integration Management Board (PIMB) is used to communicate and track of project commitments, ensure a quality project management discipline at the LBNL, and advise Laboratory management. All major scientific projects are reviewed semi-annually. The Laboratory continues to meet all its major cost and schedule milestones for its contributions to the hardware "front-ends" of the SNS project at ORNL and the DAHRT project at LANL.

ISM/WSS: LBNL remains a leader within the DOE complex on Integrated Safety Management (ISM) implementation. ISM is now well institutionalized and implemented throughout the Berkeley Laboratory, with ongoing commitment and involvement from the Director and senior Laboratory management. Management attention following an FY2000 uptick in Laboratory statistics for lost workdays associated with accidents and injuries realized a turn-around and these statistics are again trending downward. The Work Smart Standards (WSS) again received a comprehensive annual review and update to comply with DOE contractual requirements, and the updated set was amended into the DOE/UC contract.

Security: LBNL was early in developing an Integrated Safeguards and Security Management (ISSM) Plan, tailored to its status as an open "Tier III" (no classified work onsite) laboratory. New and modified DOE security requirements continue to be effectively implemented without significant, adverse institutional impacts, but the agency mandate for direct funding of security functions has had more downside than up. A Cyber-Security Program Plan (CSPP) is being successfully implemented employing a state-of-the-art, Laboratory –developed intrusion detection system (BRO). The LLNL Counter-Intelligence Officer continues to assist LBNL in fulfilling the requirements of DOE Notice/ Order 142.1, Unclassified Visits and Assignments, for those small number of Laboratory employees holding security clearances who may host visitors from sensitive countries, requiring background checks and counterintelligence briefings.

Performance Rating (Adjectival)**: Outstanding**	95.00%

ATTACHMENT

The performance expectation for each performance measure will use the scoring criteria indicated in Table 1 below. Each performance measure indicates the relative weights between the Approach/Deployment criteria and the Results criteria.

Table 1, Appraisal Scoring Guidelines for Laboratory Management

Narrative Rating (Score Range)	Approach/Deployment	Results
Unsatisfactory (59% and Below)	Little or no systematic approach evident; anecdotal information	Little or no results in key mission and business areas.
Marginal (60 to 69%)	Beginning of a systematic approach to the key mission and business areas. Early stages of a transition from reacting to problems to a general improvement orientation. Major gaps exist in deployment that would inhibit progress in achieving the key mission and business objectives.	Early stages of developing some improvements and/or early good performance level in a few key mission and business areas.
Good (70 to 79%)	A sound systematic approach, responsive to the key mission and business areas. A fact-based improvement process in place in key areas; more emphasis is placed on improvement than on reaction to problems. No major gaps in deployment, though some areas may be in the very early stages of deployment.	Improvement trends and/or good performance levels reported for most key mission and business areas. No pattern of adverse trends and/or poor performance levels in the key mission and business areas. Some trends and/or current performance levels show areas of strength and/or good to very good relative performance levels.
Excellent (80 to 89%)	A sound systematic approach, responsive to the key mission and business areas. A fact-based improvement process is a key management tool; clear evidence of refinement and improved integration as a result of improvement cycles and analysis. Approach is well developed, with no major gaps; deployment may vary in some areas.	Current performance is Excellent in most key mission and business areas. Most improvement trends and/or current performance levels are sustained in most other areas. Many to most trends and/or current performance levels show areas of leadership and very good relative performance levels.
Outstanding (90 to 100%)	A sound systematic approach, fully responsive to key mission and business areas. A very strong fact-based improvement process is a key management tool; strong refinement and integration - backed by Excellent analysis. Approach is fully deployed without significant weaknesses or gaps in the key areas.	Current performance is Outstanding in most key mission and business areas. Excellent performance levels in most other areas. Strong evidence of industry and benchmark leadership demonstrated in many areas.

Operations & Administration

Performance Area: ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

Performance Objective: #1.0 Environmental Restoration and Waste Management

The Laboratory will conduct waste operations in a safe manner that protects human health, the environment and the public and prevents adverse impacts thereon; the Laboratory will develop innovative solutions to advance the Environmental Management (EM) Program; and the Laboratory's Environmental Restoration Program will continually strive to improve efficiency and maximize remediation. **(Weight = 100%)**

Criterion: #1.1 Waste Management

The Laboratory's facilities and operations for handling waste will be managed to minimize the impact on the environment and to maximize the efficient use of EM and SC funds. The Laboratory will operate its waste facilities to continually strive to improve efficiency and reduce the waste inventory. **(Weight = 25%)**

Performance Measures: #1.1.a Waste Management, Productivity

The Laboratory will collect data on the volume of waste shipped offsite plus made "road ready" per total operations dollar costed per fiscal year. This data will be compared to an approved Current Year Work Plan to measure program efficiency. **(Weight = 10%)**

Assumptions:

1. The performance period is for a single fiscal year.
2. For EM funded activities, planned disposal volumes and planned total operations dollars in the Baseline Year Factor are determined by the final (DOE/OAK approved) Current Year Work Plan (CYWP) as amended by the Baseline Change Control process. Baseline Change Proposals (BCPs) are reviewed and, if determined to be acceptable, approved by DOE/OAK within 30 days of receipt.
3. For SC funded activities planned total operations dollars are determined by the Work Authorization System document. Planned disposal volumes are determined by the final (DOE/BSO approved) Technical Baseline.
4. Total operations dollars for Performance Year is actual funding costed at end of fiscal year for operating expense and capital equipment, relegated to the Base Program.

5. Waste volumes shall be limited to those funded and tracked by EM-30 and SC. Due to its non-defense designation, TRU waste is excluded as a waste type for the performance measure.
   "Road Ready" waste volumes are wastes that have an intended disposal site, are certified to that site's waste acceptance criteria (WAC), and its waste profiles are accepted by that disposal site, but have yet to be shipped
6. due to circumstances beyond the site's control. The waste profile acceptance requirement may be revisited on a case-by-case basis and is not applicable for TRU waste.
7. Waste identified as "road ready" will be considered disposed. Disposal credit for shipped "road ready" waste volumes is not allowed in subsequent performance period(s).
8. Mixed wastes treated and subsequently managed as low-level or hazardous waste are considered removed from inventory.
9. Low-level and mixed wastes decayed in place and disposed of are counted as both treated and disposed.
10. Conversion factor of the specific density of water (1.0) will be used to convert the weight of aqueous waste to volumetric measurements.
11. LLW with non-RCRA constituents may be allocated to LLW or MW categories.
12. Toxic Substances Control Act (TSCA) and medical waste volumes will be included with HW inventory.
13. Success Criteria and Waste Type Matrix Elements will be renegotiated to account for any significant programmatic, regulatory, and/or fiscal changes.

Gradients:

The score for this performance measure will be based on the following table:

Success Criteria

Rating	Range
Unsatisfactory	<40%
Marginal	40-49%
Good	50-65%
Excellent	66-84 %
Outstanding	85-100%

The Success Criteria Gradient is calculated using the following formula:

$$\text{Score} = \frac{\text{Waste Type Matrix Points}}{\text{Total \# of Waste Types}} \times 100\%$$

Waste Type Matrix Points are assigned from the table below by calculating for each applicable waste type the Performance Improvement (PI):

$$PI = \frac{\text{Baseline Year Factor} - \text{Performance Year Factor}}{\text{Baseline Year Factor}} \times 100\%$$

Where:

$$\text{Performance Year Factor} = \frac{\text{Total Operations Funding Costed for Performance Year}}{m^3 \text{ Waste Type Disposed}}$$

$$\text{Baseline Year Factor} = \frac{\text{Total Operations Funding Costed for Performance Year per CYWP}}{m^3 \text{ Waste Type Disposed per CYWP}}$$

Waste Type Matrix

Waste Type	PI≤-4%	-4%<PI≤0%	0%< PI≤2%	2%<PI ≤4%	PI>4%
HW	0	1	1	1	1
LLW	0	0.25	0.5	0.75	1
MW	0	0.25	0.5	0.75	1
TRU	0	0.25	0.5	0.75	1
Other	0	1	1	1	1

Performance Narrative:

LBNL Waste Management continued streamlining their program to maximize the use of SC funds for the safe and proper disposal of waste. LBNL maintained their aggressive low level and mixed waste shipping schedule this year by successfully sending waste to commercial facilities.

Highlights of this year's waste-management activities include:

- LBNL passed an unscheduled Department of Toxics Substances Control (DTSC) three-day inspection of the Hazardous Waste Handling Facility with no violations cited.
- Waste Management received approval of a modification to the Hazardous Waste Handling Facility (HWHF) Final Safety Analysis Document (FSAD) in April 2001. The modification allows the facility to store up to 440 mCi of alpha-emitting nuclides per storage room when items are stored in metal drums. This change allows the HWHF to increase its capacity to store items from the Pit Room and the Heavy Element Research Laboratory (HERL).
- DOE approved LBNL's Radioactive Waste Management Basis for DOE Order 435.1, Radioactive Waste Management, ahead of schedule.

Performance Rating (Adjectival)**: Outstanding**	100.00%

Performance Measure: #1.1.b Waste Management, Plan 2006/ACPC commitments

The Laboratory will reduce low-level and mixed waste inventories through treatment and disposal activities. Treatment and disposal volumes will be tracked and compared to the EM Management Commitments. **(Weight = 15%)**

Assumptions:

1. The performance period is for a single fiscal year. However, treatment/disposal volumes not claimed in the last performance period may be used in the current performance period not to exceed 25% of the performance year EM Commitment.
2. EM Management Commitments obtained from site-specific Accelerated Cleanup Paths to Closure document.
3. LBNL: treatment 1 m^3 MW, 10 m^3 LLW; disposal 0.1 m^3 MW, 42 m^3 LLW
4. Waste volumes shall be limited to those funded and tracked by EM-30 and SC.
5. Mixed wastes treated and subsequently managed as low-level or hazardous waste are considered removed from inventory.
6. Low-level and mixed wastes decayed in place and disposed of are counted as both treated and disposed.
7. Conversion factor of the specific density of water (1.0) will be used to convert the weight of aqueous waste to volumetric measurements.
8. LLW with non-RCRA constituents may be allocated to LLW or MW categories.
9. Success Criteria and Waste Type Matrix Elements will be renegotiated to account for any significant programmatic, regulatory, and/or fiscal changes.

Gradients:

The score for this performance measure will be based on the following table:

Success Criteria

Rating	Range
Unsatisfactory	<65%
Marginal	65-77%
Good	78-89%
Excellent	90-95 %
Outstanding	>95%

The Success Criteria Gradient is calculated using the following formula:

$$\text{Score} = \frac{1}{4}\left[\frac{\text{Amount LLW Treated}}{\text{LLW EM Treatment Commitment}} + \frac{\text{Amount MW Treated}}{\text{MW EM Treatment Commitment}} + \frac{\text{Amount LLW Disposed}}{\text{LLW EM Disposal Commitment}} + \frac{\text{Amount MW Disposed}}{\text{MW EM Disposal Commitment}}\right] \times 100$$

Basis:

1. Each element of the formula is less than or equal to 1.2. That is, the highest individual treatment/disposal versus treatment/disposal commitment ratio that can be attained is 1.2.
2. The rating of Outstanding or Excellent can be received only if each element of the formula is greater than or equal to 78%.

Performance Narrative:

LBNL aggressively utilized commercial treatment opportunities that were offered "one time bargain prices." These shipments provided cost savings and enabled LBNL to maintain sufficient storage capacity for throughput of waste.

Performance Rating (Adjectival): **Outstanding**	100.00%

Criterion: #1.2 EM Program Innovation

The Laboratory will develop innovative solutions to advance the Environmental Management Program. The EM Program includes Environmental Restoration, Waste Management, and Technology Development. **(Weight = 25%)**

Performance Measures: #1.2.a Advancement of the EM Program

The Laboratory will advance the state of the art technologies by implementing their usage; participate in the corporate advancement of the EM Program by providing solutions or assistance to other DOE/OAK sites; and identify and implement innovative technological solutions or business practices that result in savings. **(Weight = 25%)**

Assumptions:

1. The performance period will be a single DOE fiscal year. It is recognized that actions may result in cost savings that extend for more than one year. Credit for cost savings (Category 3) may be taken in each year in which cost savings are realized, up to a total of five years.
2. In general, accomplishments are expected using existing resources. In some cases, additional funding may be required to undertake specific innovative solutions. With the agreement of both parties, DOE-HQ (EM) may provide additional funds and/or allow the Laboratory to use cost savings realized to meet this performance measure.

Gradients:

The degree of innovation achieved will be measured by a point system. Points will be awarded in each of several performance categories, with a total score from all categories being the final score for the performance measure. Projects which receive credit in one performance indicator category may also receive credit for any costs savings realized (Category 3), but may not receive credits in all three categories. The performance indicators and associated award points will be as follows:

Category 1
Advance the state of the art technologies by implementing the usage of Laboratory technologies at DOE or other Government sites, or utilize other EM technologies at the Laboratory.

1a - Use of an innovative environmental technology at LBNL (including one developed by LBNL).	1 point each technology
1b- Use of an LBNL EM-developed technology at other government sites	1 point each technology
1c- Use of an LBNL EM-developed technology at	2 points each technology

any DOE site

1d- Non-DOE funded use of LBNL EM developed technology at industrial sites — 1 point each technology

Category 2
The Laboratory participates in the corporate advancement of the EM program by providing solutions or assistance on projects at other DOE sites. Projects should result in at least one of the following:

2a- Cost savings

2b- Efficiency improvement (i.e., quicker, better quality, etc.)

2c- Liability or risk reduction

2d- Use of laboratory resources and/or facilities to aid others

(1 point will be awarded for each project that meets one or more of the criteria listed.)

Category 3
Provide cost savings by identifying and/or implementing innovative technological solutions or business practices. Innovative technological solutions or business practices are defined as those that represent a significant change from current solutions or existing practices (technological or regulatory). They can not simply be refinements of existing technological or business practices, nor be cost savings due to a simple reduction in scope of work or deliverables.

- LBNL will be awarded 1 point for every $100,000 saved, but no more than 3 points per technology
- LBNL will be awarded 1 point for incorporation of innovative technologies into a Program Baseline System (PBS) with adjusted baseline

Rating	Range (LBNL)
Unsatisfactory	0-1
Marginal	2
Good	3-5
Excellent	6-8
Outstanding	9 or more

Performance Narrative:

LBNL earns most of their points from Category 1 -- implementing the usage of Laboratory technologies at DOE or other Government sites, or utilizing other EM technologies at the Laboratory. LBNL earned 9 points for an outstanding rating. DOE OAK Technology Program Officer and DOE OAK Environmental Restoration Project Manager concurs with the points earned in the self assessment conducted by LBNL

Performance Rating (Adjectival): **Outstanding**	95.00%

Criterion: #1.3 Environmental Restoration, Schedule Variance

The Laboratory's Environmental Restoration Program will be managed to improve project/program performance. The Laboratory measures its performance of projects/programs against schedule baselines **(Weight = 25%)**

Performance Measures: #1.3.a Environmental Restoration

The schedule measure will track the Laboratories' Environmental Restoration Program performance in executing projects in accordance with an approved overall schedule. Three components, the schedule variance and completion of regulatory and non-regulatory milestones, will be tracked to evaluate overall performance. **(Weight = 25%)**

Assumptions:

1. Cumulative percent schedule variance (%SV) will be obtained from the September Integrated Planning, Accountability, and Budgeting System (IPABS) Project Execution Module (PEM) Report. The Cumulative SV value will be for the fiscal year being evaluated
2. Baseline change proposals are reviewed and incorporated, if approved, by DOE in 30 days.
3. If the MARS Report contains an accounting error, SV values provided by LBNL and verified by the respective DOE Site Representative may be used.
4. Includes DOE-HQ(EM)-funded activities for PBS No. OK-003.
5. On an annual basis, representatives from LBNL and DOE will review and develop a list of both regulatory and non-regulatory milestones that will be included to evaluate performance under this measure.
6. All regulatory required milestones (milestones required by Federal, State, or local statute and/or permit conditions) must be completed on the due date to be considered complete. All other milestones must be completed not later than September 30 of the evaluation period. Additionally, on a quarterly basis, the status of the milestones will be reviewed by the DOE and LBNL manager. Milestones may be added and/or deleted if project conditions warrant a change as agreed to by DOE and LBNL.
7. Standard *Force Majeure* items (including but not limited to acts of God, nonreceipt of the President's Target Level Funding, funding rescissions, scope redirection by DOE, discovery of new, high risk site conditions that warrant immediate action and change to the MYWP, programmatic impediments) will apply and will require special considerations up to and including re-baselining.

Gradient Rating	Range for LBNL: (Total Points)
Outstanding	13-15
Excellent	10-12
Good	7-9
Marginal	5-6
Unsatisfactory	≤4

Available Points for LBNL:		
SV	Regulatory Milestone Completed	Non-Regulatory Milestones Completed
SV greater than or equal to 3% **(5 Points)**	All **(5 Points)**	All **(5 Points)**
SV less than 3% and greater than or equal to -3% **(4 Points)**	All except l **(2 Points)**	All except 1 **(4 Points)**
SV less than -3% and greater than or equal to -6% **(3 Points)**	All except 2 **(1 Point)**	All except 2 **(3 Points)**
SV less than -6% and greater than or equal to -9% **(2 Points)**	More than 2 missed **(0 Points)**	All except 3 **(1 Point)**
SV less than -9% **(1 Point)**		More than 3 missed **(0 Points)**

Each condition (SV, Regulatory Milestones Completed, and Non-Regulatory Milestones Completed) shall be evaluated independently based on the table above. The Gradient Rating for Performance Measure 1.3.a will be based on the total points achieved by combining the individual points achieved for each condition.

The schedule measure will track the Laboratories' performance in executing projects in accordance with an approved overall schedule.

$$\% SV = \frac{(\text{Annual BCWP} - \text{Annual BCWS})}{\text{Annual BCWS}} \times 100$$

Where:
SV = Schedule Variance
BCWS = Budgeted Cost of Work Scheduled
BCWP = Budgeted Cost of Work Performed

Example: SV = 0%, all regulatory milestone completed, two non-regulatory milestones missed. Total of 12 points, Overall gradient rating: Excellent.

Performance Narrative:

This measure tracks the Laboratory's Environmental Restoration Program performance in executing projects in accordance with an approved overall schedule. Three components, the schedule variance and completion of regulatory and nonregulatory milestones, will be tracked to evaluate overall performance.

The Resource Conservation and Recovery Act (RCRA) requires LBNL to complete investigation and cleanup activities in areas where contaminants are suspected to have been released. 163 areas of potential contamination were identified in the RCRA Facility Assessment. The main function of LBNL's Environmental Restoration Program is to complete restoration activities in accordance with RCRA requirements. As stated in the assumptions of this performance measure, LBNL and DOE established a list of milestones at the beginning of the fiscal year that would be tracked to evaluate performance under this measure. Six regulatory milestones and four non-regulatory milestones were identified for completion in FY 2001.

LBNL completed all regulatory milestones identified. The planned date for the Corrective Measures Plan and Risk Assessment Work Plan & Scoping Document were delayed due to the late approval of the RCRA Facility Investigation (RFI) by the Department of Toxic Substances Control. The RCRA permit established the due date for these documents based on approval of the RFI. LBNL did submit the documents by the date prescribed by the permit. As outlined in the performance measure, LBNL was entitled to five points based on the completion of all regulatory milestones.

Of the four non-regulatory milestones identified, one was completed. The completed milestone required a minimum of three out of five identified Interim Corrective Measures (ICM) to be completed by the end of the fiscal year. The source removal at B-52, the removal of the Emergency Shower Holding Tank at B-75, and the source removal at B-71B were completed during the fiscal year. Two ICMs were postponed to FY 02. The three remaining milestones were dependent on regulatory approval of the RFI. The milestones were delayed to FY 02 due to the delay in regulatory approval of the RFI. As a result, based on the criteria established in the performance measure, LBNL was entitled to five points for the completion of all non-regulatory milestones.

The schedule measure also tracks the Laboratory's Environmental Restoration Program performance in executing projects in accordance with an approved project schedule baseline. The baseline was established and outlined in the FY 01/02 Multi-Year Workplan dated February 2001. Upon review of the input to the September Integrated Plannin Accounting and Budgeting System (IPABS) report for the

end of the fiscal year (September 2001) and review of additional data provided by LBNL, it was determined that the BCWP was $3,397,364 and BCWS was $3,434,605, resulting in a total Schedule Variance of -$37,241 or -1.1 percent. As a result, based on the criteria established in the performance measure, LBNL was entitled to four points for a schedule variance less than 3 percent and greater than or equal to –3 percent.

The sum of the three criteria results in a total point score of fourteen points, which equates to an outstanding rating.

Performance Rating (Adjectival)**: Outstanding**	96.00%

Criterion: #1.4 Cost Variances

The Laboratory's Environmental Management Programs will be managed to improve project/program performance. The Laboratory measures its performance of projects/programs against cost baselines.

(Weight = 25%)

Performance Measures: #1.4.a EM Projects

The Cost measure will track the Laboratory's Environmental Restoration Program performance in executing projects in accordance with an approved project cost baseline. **(Weight = 12.5%)**

Assumptions:

1. Cumulative percent cost variance (%CV) will be obtained from the September Integrated Planning, Accountability, and Budgeting System (IPABS) Project Execution Module (PEM) Report. The Cumulative CV value will be for the fiscal year being evaluated.
2. Baseline change proposals are reviewed and incorporated, if approved, by DOE in 30 days.
3. If the Management Analysis and Reporting System (MARS) Report contains an accounting error, CV values provided by LBNL and verified by the respective DOE Site Representative may be used.
4. Includes DOE-HQ (EM)-funded activities by Project Baseline Summary (PBS)No.OK-003.

Gradient Rating	Range for LBNL:
Unsatisfactory	CV less than -5%
Marginal	CV less than -1% and greater than or equal to -5%
Good	CV less than 1% and greater than or equal to -1%
Excellent	CV less than 5% and greater than or equal to 1%
Outstanding	CV greater than or equal to 5 %

The cost measure will track the laboratory's performance in executing projects in accordance with an approved project cost baseline.

$$\%\ CV = \frac{(\text{Annual BCWP} - \text{Annual ACWP})}{\text{Annual BCWP}} \times 100$$

Where:
CV = Cost Variance
BCWP = Budgeted Cost of Work Performed
ACWP = Actual Cost of Work Performed

Performance Narrative:

The cost measure tracks the Laboratory's Environmental Restoration Program performance in executing projects in accordance with an approved project cost baseline. The baseline was established and outlined in the FY 01/02 Multi-Year Workplan dated February 2001.

Upon review of the input to the September Integrated Planning Accounting and Budget System report for the end of the fiscal year (September 2001) and review of additional data provided by LBNL, it was determined that the BCWP was $3,397,364 and ACWP was $3,207,517, resulting in a total Cost Variance of $189,847 or 5.9%. As a result, based on the criteria established in the performance measure, LBNL was entitled to an outstanding rating for this performance measure.

Performance Rating (Adjectival)**: Outstanding**	97.00%

Performance Measure: #1.4.b EM Level of Effort Programs

This measure will track the Laboratory's performance in executing Level of Effort activities in accordance with an approved project cost baseline. **(Weight = 12.5%)**

Assumptions:

1. Cumulative percent cost variance (%CV) will be obtained from the September Integrated Planning, Accountability and Budgeting System (IPABS). The Cumulative CV value will be for the fiscal year being evaluated.
2. If the Management Analysis and Reporting System (MARS) Report contains an accounting error, CV values provided by LBNL and verified by the respective DOE project manager may be used.
3. Baseline change proposals are reviewed and, if determined to be acceptable, approved by DOE/OAK within 30 days of receipt.
4. In FY01, only the EM funded Legacy Waste Project, OK-15, will be tracked under this performance measure.

Gradients:

Gradient Rating	Range for LBNL:
Unsatisfactory	CV greater than 8% or less than 0%
Marginal	CV = 8%
Good	CV greater than 5% and less than 8%
Excellent	CV less than or equal to 5% and greater than 2%
Outstanding	CV less than or equal to 2% and greater than or equal to 0%

The cost measure will track the laboratory's performance in executing projects in accordance with an approved project cost baseline.

$$\%\ CV = \frac{(\text{Annual BCWP} - \text{Annual ACWP}) \times 100}{\text{Annual BCWP}}$$

Given:
CV = Cost Variance
BCWP = Budgeted Cost of Work Performed
ACWP = Actual Cost of Work Performed

Performance Narrative:

LBNL Waste Management has again had outstanding performance in executing the approved technical scope of their FY01 Baseline in accordance with the approved budget. Allowances were made for a small allotment of funds to be carried over to FY02 to cover the first month of the new fiscal year because of the uncertainties involved in the transition of the Newly Generated Waste Program to SC. These funds were not included in the performance measure calculations.

Performance Rating (Adjectival)**: Outstanding**	98.00%

Performance Area: ENVIRONMENTAL, SAFETY AND HEALTH

Preamble: The Laboratory's goal is to accomplish its mission cost-effectively while striving for an injury-free workplace, minimizing waste streams and adverse impacts to the public and environment from its operations.

The following Performance Objective, Criteria and Measures are linked to the Guiding Principles and Key Functions of Integrated Safety Management. They include a process-oriented measure that is intended to assess key elements of the Laboratory's integrated safety management system. They also include a total system outcome measure, which is intended to be a key indicator of the performance of the Laboratory's integrated safety management system as a whole.

Performance Period: Unless otherwise specified in the measures, the performance period is October 1, 2000 through September 30, 2001.

Performance Objective: #1.0 Do Work Safely

The Laboratory systematically integrates ES&H into management and work practice at all levels so those missions are accomplished while protecting the worker, the public and the environment.

(Weight = 40%)

Criterion: #1.1 ISM Core Functions and Principles Process Measure

The Laboratory uses the five core functions and seven principles of Integrated Safety Management (ISM) in its management and work practices to protect the worker, the public and the environment.

(Weight = 40%)

Performance Measure: #1.1.a Implementation of ISM

Integrated Safety Management (ISM) is effectively implemented for management and work practices at all levels of Laboratory work. **(Weight = 40%)**

Assumptions:

1. Unless otherwise specified, the term "ES&H" shall represent prevention and protection in all areas of environment, safety, and health at the Laboratory.
2. ISM Plans refers to the Laboratory's Institutional Safety Plan, each division's ISM Plan, and the Operations departmental (Facilities and Directorate) ISM Plans.
3. In addition to other evaluation methods to be used, the Laboratory shall use ISM work reviews (jointly selected by November 30, 2000) to sample the effectiveness of ISM for driving continuous improvement or sustain safety performance in (i) mature research and research support operations and activities, (ii) infrastructure projects, and (iii) institutional equipment and instrumentation maintenance. Work reviews verify the implementation of the principles and tenets of ISM in the three operational areas.
4. Annual peer review of effectiveness of interactions between worker safety management system and occupational medicine in support of integrating safety into the workplace is a standing requirement.
5. Subcontractor operations/personnel are included in implementation of ISM if the subcontractor is performing part of the Laboratory's operations and reporting its hours to the Laboratory. To this end, the Laboratory's contracting process evaluates and considers the safety record of prospective subcontractors and, once selected, subcontractor statistics are gathered and performance tracked separately. Subcontractors are excluded from LBNL OSHA reporting if they are "servicing" the Laboratory (e.g., copy machine vendors or other transient workers).
6. Peer reviews, existing procedures, implementing memoranda, Lab tracking system data and other work process products shall serve as demonstrable evidence in contribution to satisfaction of measure gradients. Successes and difficulties associated with these processes will be included in the report. It is not the intention of this measure to foster the generation of supportive or demonstrable documents other than those needed or necessary to perform the work.
7. The evaluation of the process measure is the DOE validation of the effectiveness of ISM implementation.
8. The intent of the process measure is to drive the Lab ES&H programs to effectively implement the five core functions and seven principles to continuously improve Berkeley Lab's Integrated Safety Management System. It is recognized that the degree of success is measured on a sliding subjective scale. Overall Performance is based upon the effectiveness of the integrated safety program as measured in many ways including but not limited to Operational Awareness, Appendix F Self-Assessment Report, the LBNL ES&H Self-Assessment Report, and Division Self-Assessment Reports. The Laboratory's continuous improvement program focuses on areas such as independent self-assessments, internal and external peer reviews, lessons learned, benchmarking, and corrective actions to emphasize performance improvement measured over time. Adoption of best management practices and/or benchmarking will reflect the Laboratory's judgement on cost/risk/benefit.
9. All safety outcome metrics collected by the Laboratory are part of the evaluation.
10. Significant changes in ES&H systems and processes will be reported to the Berkeley Site Office in the Appendix F Quarterly reports. Examples of significant changes include modifications of any ISM Plans; changes to ES&H policies and requirements in, for example, Regulation and Procedures Manual, Pub 3000, Operating Assurance Plan, and WSS set; and alterations in EH&S Division staffing patterns, allocation of resources, and/or organizational structure. These changes

will be linked to efforts to drive continuous improvement in systems as measured by safety performance indicators.

11. Credit will be given for self-reporting (and having plans to resolve) issues identified during self-assessments. An Outstanding rating equates with demonstrating that effective corrective actions have been completed.
12. The Laboratory will provide evidence of management commitment and direct management involvement in improving and reinforcing the safety culture.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	Laboratory organizations have implemented and maintained ISM plans tailored to integrate safety into their research and/or operations.
Excellent	The Laboratory's ISM plans are effective for managing worker safety, radiation protection, environmental protection, waste minimization, and pollution prevention. Achievement of the Excellent gradient shall be consistent with the results of the DOE Validation of Implementation of ISM at the Laboratory and the Laboratory has eliminated the weaknesses identified in previous Validation or is on schedule according to the agreed upon corrective action plan.
Outstanding	The Laboratory uses lessons learned, outcomes from ISM plans, and/or benchmarking with best ES&H management practices within the Laboratory or in private industry to identify and design improvements to ES&H systems and processes and is able to demonstrate that the desired impact of sustainable safety performance has been achieved. Achievement of the Outstanding gradient shall be consistent with the results of the DOE Validation of the Implementation of ISM at the Laboratory" and all previously identified weaknesses have been eliminated and no new weaknesses have been identified during the current performance period.

Performance Narrative:

Implementation

The Laboratory continues to have a fully implemented Integrated Safety Management (ISM) Program and systematically integrates ES&H into management and work practices at all levels so those missions are accomplished while protecting the workers, the public, and the environment. It has Institutional and Division ISM Plans, which effectively use the five core functions and seven principles of ISM to protect the worker, the public, and the environment. It has met the requirements for an **OUSTANDING** rating. The laboratory uses lessons learned, outcomes from Division Self Assessments, peer reviews, internal and external audits to identify and design improvements to ES&H systems and processes and is able to demonstrate that the desired impact of sustainable safety performance has been achieved.

All previous identified weaknesses in the implementation of ISM have been eliminated or are on schedule to be eliminated. There are no new weaknesses that have been identified during this performance period.

This process measure evaluation is used as the DOE Annual ISM Validation. The overall implementation of ISM is rated as **OUTSTANDING.**

Effectiveness

Define the Work (Line Management and Accountability

Line management involvement in walkthroughs and accident investigations improved in all divisions except one. ES&H communications from Division Directors have increased and more supervisors have documented the Supervisor Accident Analysis Reports to identify root causes of accidents and injuries to avoid reoccurrence. Many divisions have allocated more resources to address ergonomic concerns, which has resulted in the reduction of the overall laboratory ergonomic accident injury rate.

Identity the Hazards and Implement the Controls

The Laboratory has a well-established system for work authorization. It is very effective at the activity level, but some opportunities for improvement have been observed at the facility level.

DOE staff observed the conduct of five Integrated Functional Appraisals. The reviews indicated that work authorizations were appropriate for the work performed. The Work Smart Standards (WSS) Program, which establishes the ES&H requirements for work performed, is robust. The DOE's operational awareness feedback during the WSS review indicated that the existing safety analysis requirements in PUB 3000 need to be strengthened at the facility level to meet the expectations of the DOE standards. The Laboratory has plans underway to address this opportunity for improvement. Some divisions do not have a system to document self-authorized work (work associated with very low level hazards); therefore it is difficult to assess the adequacy of the review of these hazards.

Perform the Work

There is strong evidence that work is being performed safely. This observation is supported by: (1) the relatively small number of reportable occurrences (10, all off normal); (2) the significant 20 % reduction of total recordable cases of injuries and loss work days which moved performance from marginal to excellent (3) the very low average radiation exposure of 9 mrem; (4). All personal exposure measurements and the appropriate corrective action to reduce the exposure potential for operations with high or medium potential hazards and substance specific sampling were completed; (5) no environmental violations. All divisions except one demonstrated a training completion rate at 85% or above. The overall training completion rate average was 91%. The one division was at 63 percent. The Laboratory continues to develop new courses or improve existing courses to assure that workers' competencies are commensurate with their responsibilities.

Feedback and Improvement

The Laboratory continues to have a robust Self-Assessment Program. It maintained its aggressive schedule of six Management Environment, Safety and Health (MESH) and 5 Integrated Functional Appraisal reviews.

As in previous years, the Laboratory continues to review the metrics and expectations for performance to drive improvements and assure that work is performed safely as the mission of the Laboratory is carried out. All division self-assessments were completed. The validations of the self-assessments were very thorough and included walkthroughs of space to determine existing situations. Several peer reviews were conducted, as well as internal audits.

DOE Headquarters (EH-24) Audit indicated that Ism was effectively implemented during their Environment audit conducted this year. The in-vivo and in-vitro bioassay programs at the Laboratory have been recommended for DOELAP accreditation.

The Laboratory's internal audit of the Radiation Safety Program indicated that the program was effective, with some opportunities for improvements. The DOE observer noted that there is a strain on radiation protection staffing since several of the opportunities for improvement were attributed to lack of available technicians to perform the work. Maintaining the desired level of staffing has been a challenge for several years. The Laboratory continues to struggle with this and is developing methods to address the problem. DOE will continue to monitor the progress.

The peer review of the integration of occupational medicine and Industrial Hygiene data continues is excellent.

Some opportunities for improvement of the lessons learned program were observed during the performance period. DOE observed that some lessons learned, which would have been beneficial site-wide, were only shared within individual divisions. The Laboratory needs to obtain more feedback to determine whether the lessons shared are having the desired impact. It also needs to determine whether more effective methods for sharing lessons learned are needed.

Performance Rating (Adjectival)**: Outstanding**	93.00%

Criterion: #1.2 ISM System Outcome Measures

System outcome measures are linked to the process measures. System outcomes are used to drive process excellence. **(Weight = 60%)**

Performance Measures: #1.2.a Routine Exposures from Routine Activities

Occupational radiation doses to individuals (excluding accidental exposures) from DOE operations will be managed to assure that applicable 10 CFR 835 limits are not exceeded. **(Weight = 5%)**

Assumptions:

1. The performance period for this measure is from July 1, 2000 to June 30, 2001.
2. Any actual or anticipated significant changes in workloads or badged worker population (interpreted to be an increase or decrease of 10% or more) that would affect radiation doses will be brought to the attention of UC and DOE and appropriate adjustments will be made.
3. Some variability is expected which may not be indicative of a trend.
4. This measure is directed toward current management and control of radioactive materials.
5. Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	No individual exposures in excess of 500 millirem without an increase in workload (unless specifically authorized in writing and approved by the Radiological Control Manager).
Excellent	Qualify for Good, plus the number of individual exposures exceeding 100 millirem is less than or equal to the control level of 10, without an increase in workload
Outstanding	Qualify for Excellent, plus the average individual positive dose is less than the control level of 50 millirem, without an increase in workload.

Performance Narrative:

All gradients have been met for the **Outstanding** rating. The average positive dose was 29 mrem (vs. the control level of 50 mrem). There were two individuals receiving doses above 100 mrem (vs. the control level of less than or equal to 10), and none above 500 mrem.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #1.2.b Radiation Protection of the Public and the Environment

Public radiation doses to the maximally exposed individual (member of the public) and radiological emissions to the environment, from all Lab operations, will be managed to assure that all applicable regulatory limits are not exceeded. **(Weight = 5%)**

Assumptions:

Any actual or anticipated significant change in workloads (interpreted to be an increase or decrease of 10% or more) that would affect radiation doses or radiological emissions will be brought to the attention of UC and DOE and appropriate adjustments will be made.

Each Laboratory will define any change in its site control level for the maximally exposed individual dose in coordination with its local DOE office prior to the activity.

Expectations cited for " Excellent" are consistent with ALARA goals.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	Radiation doses to the maximally exposed individual (member of the public) is greater than 4% and less than or equal to 10% of applicable regulatory limits. Radiological emissions to the environment are greater than 10% and less or equal to 20% of applicable regulatory limits.
Excellent	Radiation doses to the maximally exposed individual (member of the public) is less than or equal to 4% of applicable regulatory limits. Radiological emission to the environment are less than or equal to 10% of applicable regulatory limits.
Outstanding	Radiation doses to the maximally exposed individual (member of the public) is less than or equal to 1 % of applicable regulatory limits Radiological emissions to the environment are less than or equal to 1% of applicable regulatory limits.

Performance Narrative:

The analysis of fourth quarter data is not available at the present time. The Lab projects that public radiation doses and radiological emission indicates that overall performance will remain the same as in the third quarter and be at the excellent gradient level. The following evaluation is based upon the third quarter data and may have to be modified when the fourth quarter data is available.

The cumulative radiation dose to the public through the third quarter of FY2001 is0.0033 mSv (0.33 mrem). This cumulative public dose is less than 1 % of the allowable federal annual limit of 1 mSv/yr (100 mrem/yr).

Cumulative air emissions through the third quarter of FY2001 are about 16.5 Ci. The resulting dose to a maximally exposed individual from this release is about 0.00038 mSv/yr (0.038 mrem/yr). This too is less than 1 percent of the allowable federal annual limit of 0.1 mSv/yr (10 mrem/yr).

The cumulative sanitary sewer discharge through the third quarter of FY2001 is about 0.11 Ci. This release is slightly more than 2 percent of the permitted limit of 5 Ci/yr.

LBNL has demonstrated a continuing commitment to controlling radiological releases and radiation dose to the public. Their performance to date places them just short of an excellent rating. For this reason a rating near the high end of excellent is justified.

*As a footnote, the National Tritium Labeling Facility (NTLF) will be shut down in Dec of 2001. As a result, LBNL's net discharge of radionuclides to the air and sanitary sewer will be significantly reduced. Tritium makes up a significant portion of LBNL's radionuclide air and sanitary sewer discharges.

Performance Rating (Adjectival)**: Excellent**	88.00%

Performance Measure: #1.2.c Prevention of Unplanned Radiation Exposures

Unplanned radiation exposures and ORPS reportable occurrences of skin or personal clothing contamination are managed and minimized **(Weight = 5%)**

Assumptions:

For the purpose of this measure, unplanned radiation exposures are considered to be greater than 100 mrem. If the ORPS event is classified as an Unusual Occurrence, the weighting factor is increased by a factor of 1.5.

Some variability is expected which may not be indicative of a trend.

The number of individuals contaminated is counted.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	The weighted number of contaminated individuals is more than 6.0 but less than or equal to 8.0.
Excellent	The weighted number of contaminated individuals is more than 4.0 but less than or equal to 6.0.
Outstanding	The weighted number of contaminated individuals is less than or equal to 4.0.

Performance Narrative:

Performance during the rating period was in the **Outstanding** range. There were two ORPS-reportable instances of personnel/personal clothing contamination during the reporting period (vs. the control level of less than or equal to four). In one event an individual's hand was contaminated, and in the other, an individual's shoe was contaminated. There was one instance of personnel contamination below ORPS limits investigated by the Lab.

Performance Rating (Adjectival)**: Outstanding** 94.00%

Performance Measure: #1.2.d Control of Radioactive Material

Radioactive material, including radioactive sources and contaminated articles, is not found outside of controlled areas. **(Weight = 5%)**

Assumptions:

Off-normal occurrences have a weighting factor of 1 and unusual occurrences have a weighting factor of 1.5.

Some variability is expected which may not be indicative of a trend.

This measure is directed toward current management and control of radioactive materials.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	The weighted number of occurrences is equal to 4.0.
Excellent	The weighted number of occurrences is more than 2.0 but less than 4.0 .
Outstanding	The weighted number of occurrences is less than or equal to 2.0.

Performance Narrative:

There were two reportable occurrences during the performance period involving radioactively contaminated material outside a controlled area. These were reported by the Laboratory in Occurrence Reports. There were two instances of radioactive material outside controlled areas falling below the ORPS limits that were investigated by the Lab.

These events indicate that the number of occurrences is below the ALARA goal and is at the gradient of less than or equal to 2, and therefore the performance for this measure is rated as **Outstanding.**

Performance Rating (Adjectival)**: Outstanding** 91.00%

Performance Measure: #1.2.e Exposure to Chemical, Physical, and Biological Agents

Personal exposure measurements, and the appropriate corrective action to reduce the exposure potential for operations with high or medium potential hazards, and for substance-specific sampling (operations required by law to be sampled), are completed during the performance period.

(Weight = 7%)

Assumptions:

Operations with "high or medium potential hazard" are determined by the LBNL Integrated Functional Appraisal process.

An exposure measurement shall be defined as “one or more samples associated with an operation that gives a value which can be compared with an Occupational Exposure Limit.”

Exposure measurements will be corrected by the protection factor of the personal protective equipment in use.

When an exposure measurement is not possible, a qualitative assessment which determines the probable exposure (comparison to Occupational Exposure Limit) and level of risk (high, medium, or low as defined by the LBNL Integrated Functional Analysis process) shall be documented.

An operation is an activity comprised of one or more tasks performed at a single location that generates a hazard(s). "Hazard" includes all stressors associated with an operation; i.e., noise, lead, etc. Note: Any significant process changes constitute a new operation.

An exceedance is one or more high results (measurements above the current tiered approach of Action Level, TLV, and then PEL) associated with an operation. When no standard has been developed for an agent, another published occupational health standard will be agreed upon and utilized.

Action Level is defined as one-half of the 8-hour TWA, STEL, and CEILING limits for OSHA PELs and ACGIH TLVs, unless a different action level is specified by OSHA.

Types of measurements to be considered are: chemicals, gases, particulates, fibers, biological agents, physical agents such as noise, magnetic fields, non-ionizing radiation, and thermal stress. Note: bulk samples, swipe samples, drinking water samples, and indoor air quality measurements are not to be included.

Exposure measurements that result in an "exceedance", along with the corrective action taken, will be discussed in the Appendix F Quarterly Report.

Per OSHA definition, the Laboratory Standard (29 CFR 1910.1450) supercedes substance-specific sampling standards for laboratory operations. Therefore, only non-lab activities, such as shops and crafts, are subject to the substance-specific standards referenced in 29 CFR 1910.1001-1052.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

The severity of events is to be considered in the evaluation. Higher severity events include (but are not limited to): imminent danger situations [as defined by the Occupational Safety and Health Administration (OSHA)], worker exposures above OSHA Permissible Exposure Limits, biological exposures above the OSHA medical removal levels, and substantial property damage or personal

injury due to fire. Performance will consider all aspects of the program that enhance and promote program objectives and overall compliance.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	A list of operations with “high” or “medium” potential hazards is prepared by October 31, 2000. This list is developed from all Integrated Functional Appraisals conducted during FY00. A list, specific to LBNL operations, of all substance-specific sampling required by 29 CFR 1910 is prepared by October 31, 2000. All "substance-specific" exposure measurements are completed as required by 29 CFR 1910 during the contract period. IH exposure measurements (and corrective action) are completed for 90% of operations with "high" potential hazards. IH exposure measurements (and corrective action) are completed for 80% of operations with "medium" potential hazards.
Excellent	IH exposure measurements (and corrective action) are completed for 95% of operations with "high" potential hazards. IH exposure measurements (and corrective action) are completed for 90% of operations with "medium" potential hazards.
Outstanding	IH exposure measurements (and corrective action) are completed for 100% of operations with "high" potential hazards. IH exposure measurements (and corrective action) are completed for 100% of operations with "medium" potential hazards. The results of the completed sampling plan/yearly monitoring (for both Integrated Functional Appraisal sampling and substance-specific sampling) are used to update the Integrated Functional Appraisal hazard assessments and the Substance-specific Annual Sampling Plan.

Performance Narrative:

All industrial hygiene exposure measurements and corrective actions have been completed for all operations with medium or high potential hazards. Additionally, during the rating period a work project upgrade to Building 77 was reviewed, and actual fieldwork was observed. The work package included lead and asbestos abatement and air monitoring of worker and surrounding breathing zones. LBNL oversight of the sub-contractor was outstanding. Interviews with the sub-contractor indicated appropriate safety considerations were taken into account. The results were an outstanding job with no overexposure of any workers.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #1.2.f Accident Prevention

The baseline period for comparison is CY 1997 data. The Lab's Severity and frequency (defined as Lost Workday Case Rate (LWC) and Total Recordable Case Rate (TRC) respectively) of accidents during the performance period will be compared to the baseline period. The number of Bureau of Labor Statistics reportable occurrences of these accidents will be tracked. A downward trend is expected as compared to the baseline year. The overall performance rating for this measure will factor in LWC and TRC rates and other accident prevention information identified below.

(Weight = 7%)

Assumptions:

Laboratory statistics will be collected for the baseline for all Lab incidents including subcontractors as reported to CAIRS.

For FY 2001 and future years, baseline assumptions will be reviewed and if appropriate updated by mutual agreement of the local DOE office and the Laboratory.

Subcontractor operations/personnel are included for all subcontractors whose injury data are reported to CAIRS. Subcontractors are excluded if they are "servicing" the Laboratory (e.g., copy machine vendors or other transient workers).

The Lab's 5 year goal for reduction of LWC and TWC is derived from industry best in class Benchmarking Study completed in 1998 and in agreement with DOE.

Consideration will be given to the Lab's rank for LWC and TRC within the best in class peer group.

Establishment and reporting of upper and lower control limits to determine the significance of accident rate variation (caused variation vs. random variation) will be examined.

Consideration will be given if any targeted/focused accident prevention program to a sub-population within the Lab demonstrates effective intervention and/or improvement in the combined LWC and TRC score.

Consideration will be given upon demonstration of quantifiable return of investment (ROI) from implementation of accident prevention program initiatives.

Consideration will be given to the rate of annual rate of reduction for LWC and TRC using best in class as the benchmark and 1997 as the baseline year.

Overall rating of accident performance should be weighted towards higher recognition and credit for managing and reducing severity (LWC) of DOE recordable cases, due to LBNL's efforts to develop and implement multiple accident prevention initiatives early in the performance contract period. Therefore, the LWC has a weighting factor of 2 to 1 in comparison to the TRC.

Gradients:

Progress toward reduction goals is evaluated using the following scoring system:

Performance Year FY2001:

TRC between 3.00 and 2.39 = 1 point
TRC between 2.39 and 1.94 = 2 points
TRC below 1.94 = 3 points
LWC between 1.58 and 1.28 = 2 points
LWC between 1.28 and 0.98 = 4 points
LWC below 0.98 = 6 points
Performance Year FY2002:

TRC between 3.00 and 2.32 = 1 point
TRC between 2.32 and 1.72 = 2 points
TRC below 1.72 = 3 points

LWC between 1.54 and 1.14 = 2 points
LWC between 1.14 and 0.74 = 4 points
LWC below 0.74 = 6 points

Performance Year FY 2003:

TRC between 3.00 and 2.25 = 1 point
TRC between 2.25 and 1.50 = 2 points
TRC below 1.50 = 3 points

LWC between 1.50 and 1.00 = 2 points
LWC between 1.0 and 0.50 = 4 points
LWC below 0.50 = 6 points

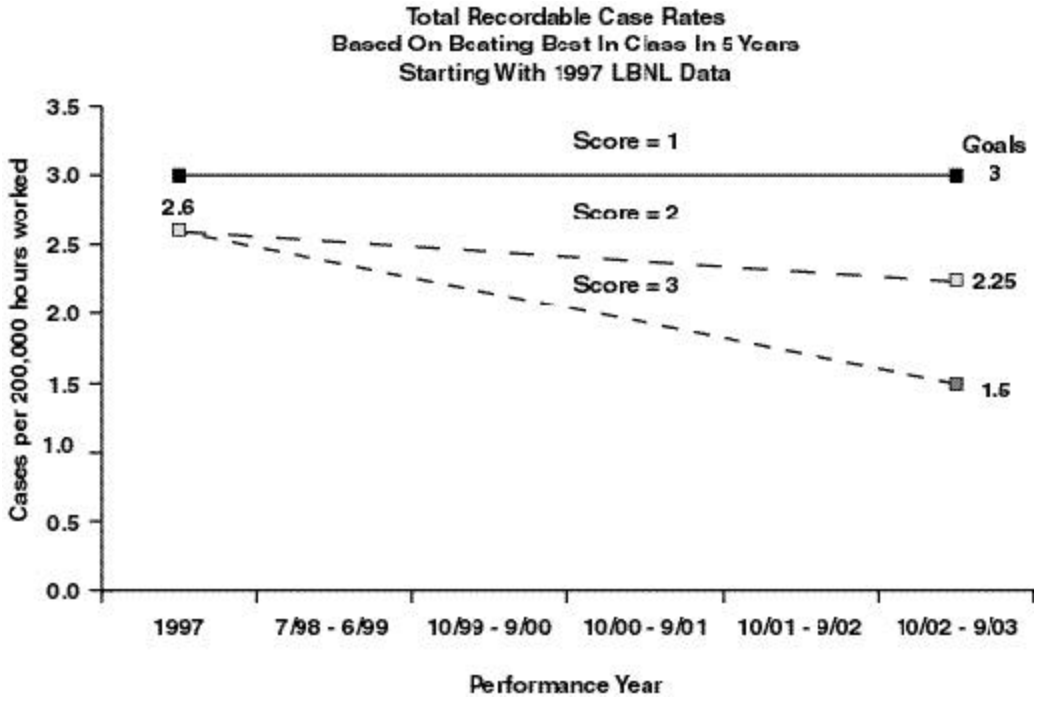


Figure 1: LBNL Total Recordable Case Rate, 5 Year Goals

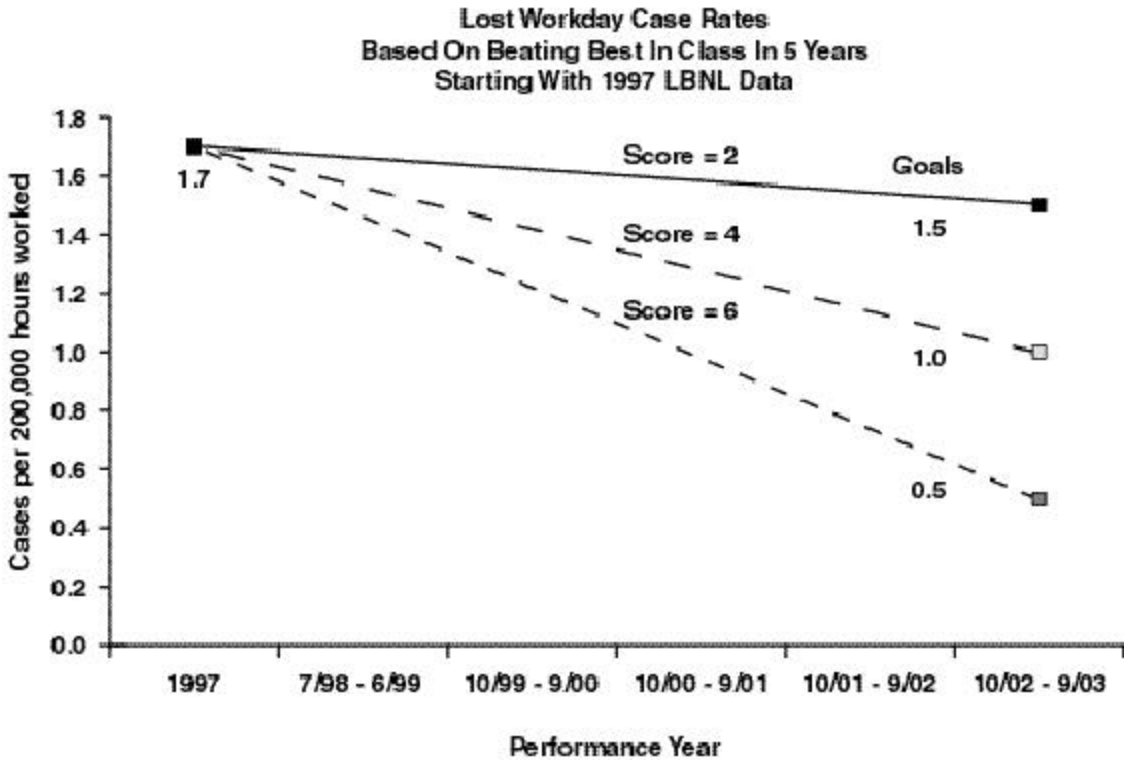


Figure 2: LBNL Lost Workday Case Rate, 5 Year Goals

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	Performance for LWC and TRC is scored and then summed. The sum for this gradient is 2 to 4 points, with consideration for demonstrated achievements identified within the list of assumptions.
Excellent	Performance for LWC and TRC is scored and then summed. The sum for this gradient is 5 to 7 points, with consideration for demonstrated achievements identified within the list of assumptions.
Outstanding	Performance for LWC and TRC is scored and then summed. The sum for this gradient is 8 or more points, with consideration for demonstrated achievements identified within the list of assumptions.

Performance Narrative:

Accident and injury statistics for the performance period show significant decreases in both total recordable cases (TRC) and lost workday cases (LWC).

The Laboratory should be commended for its performance in the worker safety area. One year ago the rating in this area was MARGINAL. This year the Laboratory demonstrated a strong institutional safety commitment that vaulted them into the outstanding rating for three out of the four calendar quarters. This tremendous effort unfortunately could not be sustained. The fourth quarter statistics indicated a slight increase which when factored into the final rating, dropped the Laboratory rating to an Excellent. (The final number for TRC came in at 2.41, needed for an outstanding was 2.39, and for LWC the final number was 1.09, needed for an outstanding was 0.98.) The final quarter statistics should not take away from the fact that the Laboratory had an outstanding year in bringing down the injury rate statistics.

Performance Rating (Adjectival)**: Excellent**	89.00%

Performance Measure: #1.2.g Occupational Safety and Health

Hazards are recognized during Occupational Safety and Health assessments and serious and imminent danger situations are appropriately mitigated. **(Weight = 7%)**

Assumptions:

Data will be collected for the period of July 1, 2000 through June 30, 2001.

Imminent Danger situations and Serious violations are as defined by the OSHA Field Inspection Reference Manual and by Section 13(a) of the Occupational Safety and Health Act.

Subcontractor operations/personnel are included if the subcontractor is performing part of the Laboratory's operations. Subcontractors are excluded if they are "servicing" the Laboratory (e.g., copy machine vendor or other transient workers).

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

The severity of events is to be considered in the evaluation. Higher severity events include (but are not limited to): imminent danger situations [as defined by the Occupational Safety and Health Administration (OSHA)], worker exposures above OSHA Permissible Exposure Limits, biological exposures above the OSHA medical removal levels, and substantial property damage or personal injury due to fire. Performance will consider all aspects of the program that enhance and promote program objectives and overall compliance.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	70% of operations have documented evidence of annual safety inspection. All high hazard operations are inspected annually. Imminent Danger situations are mitigated immediately upon discovery. All Serious Violations are mitigated or corrected within 5 working days or an agreed-upon schedule. Until mitigation, equivalent protection or abatement will be implemented to ensure protection of workers.
Excellent	At least 90% of the scheduled formal self assessments have been completed and reports issued. At least 90% of the corrective actions have been completed on schedule. There is documented evidence that the lab has reviewed at least 90% of its workspaces, for those divisions reviewed in the current performance year, where there are hazards of medium and high level of concern as identified through the 1996 LBL IHA.

Outstanding One hundred percent (100%) of the scheduled formal self assessments have been completed and reports issued.

Corrective actions are consistently completed on schedule.

There is documented evidence that the lab has reviewed 100% of its workspaces, for those divisions reviewed in the current performance year, where there are hazards of medium and high level of concern as identified through the 1996 LBL IHA.

Performance Narrative:

A rating of excellent appropriate for this pst years accomplishments. Incidents posing a serious violation or imminent danger were identified and corrected in a timely manner. All scheduled self-assessment were completed as scheduled, and all hazardous operations, those covered by hazards authorizations have been inspected during the Laboratories annual reviews. The Laboratory missed a rating of Outstanding by only completing 90% of corrective actions for the year. This area is expected to improve with the introduction of a new Laboratory wide corrective action tracking system

Performance Rating (Adjectival)**: Excellent**	87.00%

Performance Measure: #1.2.h Tracking Environmental Incidents

The number of environmental incidents will be measured. Environmental incidents include:

- violations resulting from regulatory inspections or regulatory reporting
- reportable occurrences of environmental releases exceeding regulatory or permitted levels established by Federal, State or Local agencies (authorized by Federal or State agencies to implement Federal or State environmental statutes). **(Weight = 9%)**

Assumptions:

Audit is defined as an external review of a program that results in a formal report to the Laboratory, with any findings tracked by the appropriate organizational group (e.g., LBNL-OAA).

Environmental releases or excursions that remain within compliance limits will not be counted as incidents by this measure.

The Laboratory has the option to apply a weighting factor to each incident, depending on its severity and magnitude. All environmental incidents that are serious will be given a weighing factor of 1, on a scale of 0 to 1. A release or violation is considered serious unless an alternate weighting factor is proposed by Berkeley Lab. The Laboratory and DOE technical counterparts will jointly agree upon the assignment of an appropriate weighting factor for non-serious releases.

Percent increase is based upon comparisons made to the average of the 3 previous years.

When the number of incidents is less than or equal to 3, scoring will be based solely on this number.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated, however results fall short of the expectations for the Good gradient.
Good	More than 3 incidents and an increase in incidents by less than or equal to 50%
Excellent	More than 1 and less than or equal to 3 incidents
Outstanding	1 incident or less.

Performance Narrative:

LBNL had no environmental incidents during the performance period. This is a significant improvement over last year (LBNL received a marginal rating last year due to medical waste management violations). In addition, LBNL usually has only small number of environmental incidents (with the exception of last year). As a result, a rating at the high end of outstanding is justified.

Performance Rating (Adjectival)**: Outstanding**	98.00%

Performance Measure: #1.2.i Waste Reduction and Recycling

The Laboratory continues to progress towards meeting the DOE's pollution prevention goals for the year 2005. **(Weight = 10 %)**

Assumptions:

By the year 2005, reduce nonhazardous, hazardous, low-level radioactive, and low-level mixed waste generation from routine operations by the following amounts, using 1993 as a baseline. The performance period is the DOE fiscal year (October 1-September 30).

Reduce nonhazardous waste by 67%. Parameter measured is routine sanitary waste sent to landfill (total minus recycled amount). Measured generation rate is adjusted annually for changes in the total LBNL operating budget. Includes low-level radioactive waste reclassified to sanitary waste after decay in place.

Reduce hazardous waste by 75%. Parameter measured is routine hazardous waste (RCRA and non-RCRA) shipped off site, regardless of destination. Includes secondary hazardous waste from decay in place of mixed waste or combined waste. Does not include TSCA, site restoration, site renovation, or other one-time wastes. Generation rates are adjusted annually for changes in the operating budgets of divisions or departments that generate routine hazardous waste.

Reduce low-level radioactive waste by 75%. Parameter measured is waste volumes/weights entering the HWHF, based on Shoebox reports. Excludes waste reclassified to sanitary after decay in place. Includes secondary radioactive waste from successful treatment of the hazardous constituents of low-level mixed wastes. Generation rates are adjusted annually for changes in the operating budgets of divisions or departments that generate routine low-level radioactive waste.

Reduce low-level mixed waste by 75%. Parameter measured is waste volumes/weights entering the HWHF, based on Shoebox reports. Excludes waste reclassified to hazardous after decay in place and waste reclassified to radioactive or combined after successful treatment to remove RCRA hazardous constituents. Generation rates are adjusted annually for changes in the operating budgets of divisions or departments that generate routine low-level mixed waste.

When a calendar year 2005 goal is met for any waste type, the new goal will be continuous improvement for that waste type.

Performance points will be awarded in the same fashion as for the FY1993-2000 Performance Measure, as shown in the charts below.

Outcome Measure reports demonstrate how results are used to drive improvement or maintain current best management practices.

Gradients:

Progress toward reduction goals are evaluated by either using the following charts or progress on an agreed- to "waste type" reduction plan:

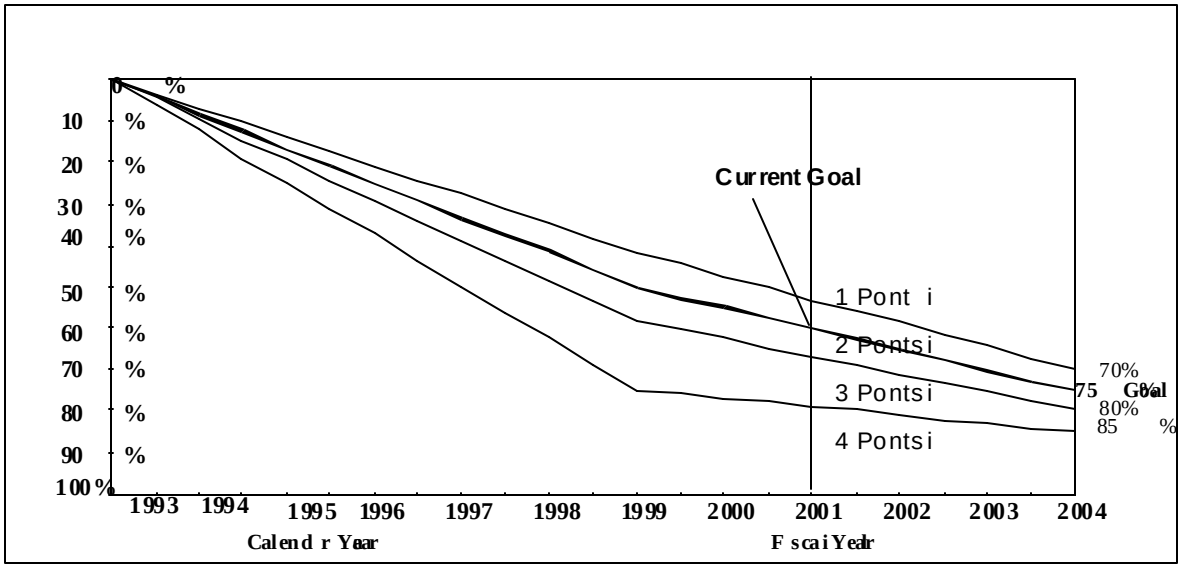


Figure 1. Chart to be used for routine hazardous, low-level radioactive, and low-level mixed waste reductions.

Figure 2. Chart to be used for routine sanitary waste reduction.

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated, however results fall short of the expectations for the Good gradient.

Good A reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is 7, 8 or 9 points.

Excellent A reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is greater than 9 points but less then 12.

Outstanding A reduction in generation of each waste type is calculated and scored (1 to 4 points) then summed. The sum for the four waste types is greater than 12 points and less than 16.

An annual increase in the types and amounts of wastes and materials recycled and/or reused onsite or offsite (after adjustment for source reduction).

Performance Narrative:

LBNL Waste Management continued significant waste reduction to maximize the use of SC funds for safe and proper disposal of waste. Highlights of this outstanding year in waste-minimization and pollution activities include:

- Routine Sanitary Waste: For FY 2001 the Laboratory achieved an overall reduction of 63 percent compared to 1993 generation rate. LBNL- continues to optimize sanitary waste recycling through dumpster dives and employee education.

- Routine Hazardous Waste: For FY 2001 the Laboratory achieved an overall reduction of 74 percent compared to 1993 generation rates. Through implementation of a laundry program for oil-contaminated rags and absorbents, the Laboratory significantly reduced this wastestream.

- Routine Low-Level Radioactive Waste: For FY 2001 the Laboratory achieved an overall reduction of 65 percent compared to 1993 generation rates. Some divisions generated less low-level radioactive waste than in FY 2000, while enhanced research in others generated more.

- Routine Low-Level Mixed Waste: For FY 2001 the Laboratory achieved an overall reduction of 76 percent compared to 1993 generation rates. Some research activities generated less routine mixed waste, while the Environmental, Health and Safety (EH&S) Division generated more. This increased generation resulted from reclassification of scintillation vials previously classified as low-level waste.

Performance Rating (Adjectival)**: Outstanding**	92.00%

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Performance Area: FACILITIES MANAGEMENT

The University of California, in partnership with the Department of Energy, shall plan, acquire, operate, maintain, lease, and dispose of physical assets as valuable national resources. The management of physical assets from acquisition through operations and disposition shall be an integrated and seamless process linking the various life cycle phases. Stewardship of these physical assets during all phases of their life cycle shall be accomplished in a safe and cost-effective manner to meet the DOE mission and to ensure protection of workers, the public and the environment. This management of physical assets shall incorporate industry standards, a graded approach and these performance objectives.

General Note: Plans, lists, and milestones made a matter of record on the first day of the fiscal year may be revised during the year by mutual agreement between the Laboratory and DOE Facility Functional Managers.

Performance Objective: #1.0 Real Property Management

The Laboratory will effectively manage Real Property**.** **(Weight = 5%)**

Criterion: #1.1 Real Property Management

Real property is effectively managed consistent with mission, requirements, and DOE direction. **(Weight = 5%)**

Performance Measure: #1.1.a Program Implementation

Number of completed milestones/milestones scheduled for completion. **(Weight = 5%)**

Assumptions:

Intent is to measure the effectiveness, completeness, and timeliness of implementation of Real Property management actions. Milestones will be established in partnership with DOE and made a matter of record in the first month of the fiscal year. Milestones may be established for Facilities Information Management System completeness, office space utilization, substandard building space conversion, real property leases, etc.

Gradients:

Unsatisfactory	less than 0.60
Marginal	0.60
Good	0.70
Excellent	0.80

Performance Narrative:

All established milestones for LBNL concerning management or improvement of real property were completed on a timely basis for FY 2001. The milestones included production of the annual Facilities Information Management System (FIMS) Quality Assurance Plan along with verification of population and accuracy of the LBNL portion of the FIMS database, optimizing of LBNL office and lab space, produce suitability report for all LBNL buildings, and eliminate or develop and convert substandard building space. Almost 100 percent of the FIMS required data has been validated with corresponding high accuracy. The completion of all established milestones justifies a rating of **outstanding**. At the request of DOE-HQ, LBNL is also pursuing a project to expand and update the FIMS data.

Space Planning is working to resolve space-planning problems on site. Crowding is a serious and continuing concern, as well as the rehabilitation or demolition of substandard excess space. For FY 2001 there was 14,700 sq. ft. of space renovated with office utilization now standing at 113 sq. ft. per person (GSA standard at 135 sq. ft. per person).

Leasing efforts were initially focused upon replacement of 100,000-sq. ft. of warehouse space caused by the new owner's request to LBNL to vacate the facility 3-years prior to the lease expiration date (terminated when the owner withdrew his vacancy request). Several other noteworthy projects included a License renewal for a Telecommute Center in Livermore, a demolition request and subsequent DOE approval for removal of the Building 29 complex (5 buildings) as a safety and health hazard, initiation of a third-party funded building request for a new University of California office building to relieve some lab over crowding, and a license renewal for research property.

Performance Rating (Adjectival): **Outstanding**	98.00%

Performance Objective: #2.0 Physical Assets Planning

The Comprehensive Integrated Planning Process should reflect current and future Laboratory needs. **(Weight = 14%)**

Criterion: #2.1 Comprehensive Integrated Planning Process

The Laboratory develops, documents, and maintains a comprehensive integrated planning process that is aligned with DOE mission needs. **(Weight = 14%)**

Performance Measure: #2.1.a Effectiveness of Planning Process

Assess how the planning process is implemented to achieve maximum effectiveness in anticipating and articulating DOE and Laboratory needs. **(Weight = 14%)**

Assumptions:

The Laboratory will work with DOE counterparts in a cooperative effort to continuously evaluate the effectiveness of the comprehensive integrated planning process through the development of Laboratory specific planning elements/milestones. Site specific planning elements/milestones will be made a matter of record on the first day of the fiscal year.

Gradients:

Unsatisfactory	less than 0.60
Marginal	0.60
Good	0.70
Excellent	0.80
Outstanding	0.90

Performance Narrative:

In the area of Comprehensive Integrated Planning (CIP), LBNL is rated as **outstanding**, 90.0, for FY 2001. LBNL continues to be a viable site to DOE, the scientific community, user groups, commercial and public partnerships and to the University of California. Effective physical asset and land use planning will assure the continuation of LBNL's value to DOE and to the scientific community. This evaluation utilized the FY 2001 Appendix F Performance Objectives, Criteria and Measures (POCM), the FY 2001 work plan, associated milestones, operational awareness activities and the LBNL self-assessment.

LBNL's Facilities Planning Office developed and DOE/NNSA OAK accepted a comprehensive work plan for FY2001 that contained seven major topical areas. The topical areas of the work plan were linked with a total of twenty-five (25) detailed milestones as well as on-going activities that will measure performance and/or improvements throughout the review period. The work plan represents the most important activities under the responsibility of the LBNL Facilities Planning Office. The seven major topical areas were: a) Site and Long Range Planning (LRDP), b) Vegetation Management/Wildland Fire Risk Management, c) National Environmental Policy Act/California Environmental Quality Act (NEPA/CEQA), d) Geographical Information System (GIS), e) Parking and Transportation Analyses, f) Signage and, g) Facilities Planning Web Site. All milestones were completed on a timely basis and all on-going activities were satisfied.

Significant accomplishments, with respect to the work plan, include: the progression of the Long Range Development Plan, the development of an implementation plan to convert Lawrence Road to two-way traffic and the update of the web-based LBNL Comprehensive Facilities Plan (CFP). The process of updating the LRDP is a University of California (UC) requirement and will require an Environmental Impact Statement (EIS) to be developed based on the LRDP. Although the LDRP and EIS effort is a UC and State of California requirement, its outcome will significantly affect other DOE plans such as the Institutional Plan, the Comprehensive Facilities Plan and the Strategic Facilities Plan. The LRDP process is an approximately two-and-one-half year project that is scheduled to be complete in late CY 2002. It is recognized by DOE/NNSA that effort required and will continue to require significant manpower at LBNL. The study of converting Lawrence Road to two-way traffic could significantly impact the already tight parking situation, change on-site shuttle routes and/or reduce the number of government vehicles on site. The CFP remains the overall facilities planning document at LBNL and its continuation as a living document will help assure appropriate stewardship of physical assets.

LBNL also addressed many activities/issues that were not identified on the work plan. Issues identified were via operational awareness as a result of quarterly meetings, occasional visits to LBNL and E-mail and telephone discussions. Of note is the Facilities Planning Office's involvement with the Old Town Relocation Task Force, the Old Town Master Plan, the siting of the Molecular Foundry, Energy Efficiency and Electricity Reliability Laboratory (EEERL), and the Femtosecond Accelerator Projects, the Civic Center Design Charrette (architectural brainstorming event) and the Building 50X study. Activities such as these are significant in that they not only address LBNL's core competencies, but they address the need for additional office space at the LBNL site. The topography of the LBNL site, the age of the facility (as a whole) and the lack of adequate funding to demolish sub-standard or excess facilities continue to pose unique challenges to utilize space effectively at LBNL.

In FY2001, LBNL continued to execute both the intent and spirit of the LCAM Partnering Agreement and the Assessment Management Plan. Both documents represent DOE/NNSA OAKs and LBNL's commitment to performance-based contracting. DOE/NNSA OAK remained apprised of major activities through detailed quarterly reporting and by various operational awareness-type meetings throughout the year. The method currently utilized for instituting the Appendix F POCM and evaluation processes continues to be viable. Quarterly reporting and operational awareness meetings need to continue to assure the implementation of the work plan, to assure process improvements occur when and where possible and to assure effective asset and land use planning.

Performance Rating (Adjectival)**: Outstanding**	90.00%

Performance Objective: #3.0 Project Management

The Laboratory will complete construction projects within approved budgets, schedules and scopes. **(Weight = 33%)**

Criterion: # 3.1 Construction Project Performance

Construction projects greater than $500K (regardless of type of funds) achieve project performance objectives. **(Weight = 20%)**

Performance Measure: #3.1.a Work Performed

Number of objectives completed/number of objectives planned for completion. **(Weight = 20%)**

Assumptions:

The intent is to measure actual progress against that planned for the fiscal year and for the Laboratory to execute projects and cost project funds in a timely manner. An objective list for all active projects will be negotiated with DOE and made a matter of record on the first day of the fiscal year. Only meaningful objectives will be listed, but each active project will have at least one objective per year. By mutual agreement between the Laboratory and DOE, objectives may be weighted for project significance, for project size/cost, for late/early completion, for improved/diminished scope, etc. Negotiated objectives are not to be interpreted as baseline change approval. At LBNL, milestones for the SNS Project are selected from the Baseline/work package approved by Oak Ridge National Laboratory (ORNL) and/or the DOE SNS Project Office at Oak Ridge, consistent with the SNS Project inter-Laboratory and DOE inter-Office Memoranda of Agreement.

Gradients:

Unsatisfactory	less than 0.70
Marginal	0.70
Good	0.80
Excellent	0.90
Outstanding	1.00

Performance Narrative:

Initially, seventeen milestones were selected to measure the performance against baselines for construction projects greater than $500,000. Milestones for the following two Lines Item projects, three General Plant projects and six Operating Funded projects, respectively, were used:

	Date of Completion
B 77 Rehabilitation	
• Structural Rehabilitation; Issue Notice to Proceed with Construction	11/00
• Beneficial Occupancy; Phase One Construction; Phase I Construction (Structural Upgrades at Column Lines Q-XX)	9/01
Sitewide Water Distribution Upgrade	
• Receive Title I Submission from A/E Design Consultant	5/01
• Receive Title II Design Submission from A/E Design Consultant	9/01
B 6 Second Floor Lab & Office Space	
• Beneficial Occupancy; Subcontract 807	2/01
• Beneficial Occupancy; Subcontract 807	2/01
Radio Communications System Upgrade	
• Issue Design Build Request for Proposal	2/01
B 2 Ventilation Improvements	
• Start Construction	4/01
Oakland Scientific Facility	
• Beneficial Occupancy; Above Standard Alterations	10/00
• Installation of Liebert Units and Power Distribution Units Complete	10/00
• Beneficial Occupancy; Second Floor Offices	10/00
Spallation Neutron Source	
• MEBT Quadruple Magnets Complete	11/00
• RFQ Vacuum Components Received	1/01
• MEBT Raft and Support Structure Final Design Review	3/01
• RFQ Module #2 Assembly Complete	3/01
• 65 mA Ion Source Beam Current Demonstrated	8/01

NOTE:

The following revisions were made:

B 77 Rehabilitation: the milestone description was changed to reflect a revised sequence of work based upon DOE/BSO concurrence with LBNL letter dated February 28, 2001.

B 6 Second Floor Lab & Office Space: the milestone date was changed from December to March due to an unavoidable delay caused by s drywall paper strike and a shortage of electricians. DOE/BSO concurred with the change in a LBNL letter dated January 18, 2001.

Radio Communications System Upgrade: the "start construction" milestone was deleted due to a reduction in available GPP funding. DOE/BSO concurred with LBNL letter dated February 28, 2001.

RFQ Vacuum Components: the cryopumps were delivered in January, 2001. The valves were not delivered until March, 2001 due to a vendor delay in processing and shipping.

Therefore, there were a total of 16 milestones for FY 2001.

Project milestones completed on schedule / Project milestones scheduled for completion = 16/16 = 1.00. Thus, LBNL's performance in this area has remained **outstanding** as it has been for the past four years. As in previous years, this performance can be attributed to LBNL staff's proactive approach to project management and their continued efforts to keep DOE OAK informed well in advance of anticipated or impending problems.

Performance Rating (Adjectival)**: Outstanding**	94.00%

Criterion: #3.2 Construction Project Cost

Line-Item projects (including any project $5000K and over regardless of type of funds) meet cost baselines. **(Weight = 13%)**

Performance Measure: #3.2.a Total Estimated Cost (TEC)

Estimated cost at completion for all active projects/performance measure baseline TEC for all active projects. **(Weight = 13%)**

Assumptions:

The intent is to measure Laboratory performance in executing projects within the approved TEC. The performance measure baseline is the original approved baseline adjusted for allowed cost or work scope changes. DOE determines whether changes are allowed. The method of calculating estimated cost at completion, including or excluding contingency, will be made a matter of record on the first day of the fiscal year. Contingency and cost reductions will be reflected in the estimated cost at completion. Disposition of pending Baseline Change Proposals, for the purposes of this measure, will be made by mutual agreement. By mutual agreement, projects may be weighted for significance. At LBNL, for the SNS Project, the performance period Budgeted Cost of Work Schedule (BCWS) is that which is approved by the ORNL and the DOE SNS Project Office.

Gradients:

Unsatisfactory	greater than 1.01
Marginal	1.01
Good	1.00
Excellent	0.99
Outstanding	0.98

Performance Narrative:

Three projects were rated for FY 2001. The baseline estimated cost, the actual/estimated cost at completion and the performance measure baseline TEC for all active projects were as follows:

Project	Baseline TEC	Actual/Est.	Performance TEC
B 77 Rehabilitation	$ 8,000,000	$ 8,000,000	$ 8,000,000
Sitewide Water Distribution Upgrade	8,300,000	8,300,000	8,300,000
Spallation Neutron Source Front End	19,201,000	19,201,000	19,201,000
Totals:	**$ 35,501,000**	**$ 35,501,000**	**$35,501,000**

NOTE:

Spallation Neutron Source Front End**:** The TEC for this project increased from $18,400,000 last year after adjustment for DOE-allowed cost or work scope changes. The TEC does not include contingency held at ORNL.

Estimated cost at completion for all active projects / Performance baseline TEC for all active projects = $35,501,000 / $35,501,000 = 1.00.

Therefore, the rating for FY 2001 remained at good as it was in FY 2000.

Performance Rating (Adjectival)**: Good**	75.00%

Performance Objective: #4.0 Maintenance

The Laboratory will maintain capital assets to ensure reliable operations in a safe and cost-effective manner. **(Weight = 33%)**

Criterion: #4.1 Facility Management

Facility operations and maintenance are effectively managed consistent with mission, risks, and costs. **(Weight = 13%)**

Performance Measure: #4.1.a Program Implementation

Sum of completion percentages for all milestones worked/milestones scheduled for completion. **(Weight = 13%)**

Assumptions:

Intent is to measure the effectiveness and timeliness of the Laboratory's facility maintenance program. A list of mutually agreed milestones will be made a matter of record on the first day of the fiscal year. For multiple-facility milestones, completion percentage will be an average of the completion percentages for each facility included in the milestone. If no milestones are selected for the fiscal year, the weight of Performance Measure 4.1.a will be added to Performance Measure 4.2.a.

Gradients:

Unsatisfactory	less than 60%
Marginal	60%
Good	70%
Excellent	80%
Outstanding	90%

Performance Narrative:

DOE OAK rates LBNL's performance in the area of facility operations and maintenance as **outstanding** for FY 2001. LBNL Maintenance Program Plan for FY 2001 included twenty maintenance milestones. Nineteen of twenty maintenance program milestones were completed as agreed for a performance ratio of 95 percent. LBNL's facility management team continued to focus on activities designed to improve the quality of procedures and better track and manage maintenance requirements. FY 2001 milestones included further development of five-year inspection program, requirements and project plans, property inspection plans, and control of maintenance backlog. Noteworthy accomplishments related to LBNL efforts to improve maintenance work controls. Specifically, development and implementation of Maximo Equipment Specifications which included equipment attributes, value list and equipment specifications templates attached to specific equipment and the implementation of Maximo Work Plan Materials on 1700 pieces of equipment for PM`s. This also included defining new PM Job Plans with detailed work steps with an anticipated return on investment of less than one year. Also of note are the property outsource inspection and maintenance planning milestones which demonstrate LBNL's continued commitment to providing reliable and accurate condition information and maintenance work plans. Considering the aggressive FY 2001 milestone selection and their overall effectiveness, a rating of 95 percent is justified for this performance measure.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Criterion: #4.2 Maintenance Program

The facility maintenance program is effectively managed and performed. **(Weight = 20%)**

Performance Measure: #4.2.a Maintenance Index

Performance index based on selected Maintenance Performance Indicators. **(Weight = 20%)**

Assumptions:

A composite index will be calculated using a weighted average for selected performance indicators. The list of performance indicators, and the calculation algorithm will be made a matter of record on the first day of the fiscal year. Performance gradient calculations will consider Best-in-Class for comparable Energy Facility Contractors Group (EFCOG) benchmarking participants and the EFCOG average for comparable activities/sites.

Performance Gradients:

Unsatisfactory	less than 0.60
Marginal	0.60
Good	0.70
Excellent	0.80
Outstanding	0.90

Performance Narrative:

LBNL's overall maintenance performance is **outstanding** comparable to the "Best-in-Class" among the Energy Facility Contractors Group (EFCOG) benchmarking participants for the selected performance indicators.

The maintenance performance composite index score rates LBNL performance compared to the Energy Facility Contractors Group (EFCOG) benchmarking participants for the selected performance indicators.

LBNL's Facility Maintenance Program composite index score was .92 for FY 2001 for the following Maintenance Index Performance Element Indicators:

1. Janitorial ($/GSF)
2. Recordable Injury/Illness (Cases/200k Manhours)
3. Maintenance-Caused Operational Accidents (Maintenance-Caused Incidents/Total Occurrence Reports)
4. Proactiveness of Craft Hours (PPM Hours/Total Maint. Craft Hours)
5. Total Annual Maintenance Costs (Direct M $/Total RPV $)
6. PMs Completed on Schedule (% PM on Schedule)
7. Plant Stewardship (Mission Critical BKL $ / Estimated RPV $)

Note: The composite index score is based on the summation of weighted performance element indicators (PEI) which compare LBNL performance to EFCOG average and best benchmark data using the following algorithm:

Score = Sum(Weight x PEI)
PEI= [0.3{(LBNL-AVE) / (BEST-AVE)}]+0.7
Ave. = EFCOG Average Value (1999)
Best = EFCOG Best Value (1999)

Of particular noteworthiness is LBNL's plant stewardship benchmark performance. This benchmark measures mission critical backlog as a percent of real plant value which is an indicator of facilities and infrastructure ability to support mission requirements. LBNL's score was EFCOG's best value for a second year. In addition, LBNL continues to contribute to the EFCOG Benchmarking committee's improved definitions and calculation algorithms to further enhance the validity of index values. LBNL's overall maintenance performance and proactive membership in the EFCOG committee warrants an overall rating of 95 percent for this performance measure.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Objective: #5.0 Utilities/Energy Conservation

The Laboratory will maintain a reliable utility system and conserve energy.

(Weight = 15%)

Criterion: #5.1 Reliable Utility Service

Maintain reliable utility service. **(Weight = 8%)**

Performance Measure: #5.1.a Electric Service

Total number of customer hours of electric service less the number of customer hours of unplanned outages/total customer hours. **(Weight = 8%)**

Assumptions:

Unplanned outages that are caused by occurrences outside the boundary of the Laboratory's utility system may be excluded. A 12-month running average will be reported.

Gradients:

Unsatisfactory	less than 99.974%
Marginal	99.974%
Good	99.982%
Excellent	99.990%
Outstanding	99.995%

Performance Narrative:

According to the UC Self-Assessment, LBNL has achieved an average reliability of 99.999%. Such an achievement reflects strong management of the lab's distribution systems, and highly effective maintenance and operation of the electric power systems.

Performance Rating (Adjectival)**: Outstanding** 95.00%

Criterion: #5.2 Energy Consumption

Effectively manage energy usage. **(Weight = 2%)**

Performance Measure: #5.2.a Building Energy

The reduction in energy usage from FY90 levels in BTUs per gross square feet of building expressed as a percent of FY90 energy usage. **(Weight = 2%)**

Assumptions:

Current year reduction goals interpolated from the DOE goal of a 20% reduction from FY90 levels by FY2005. Utility loads associated with experimental or industrial processes may be excluded from this measure by mutual agreement.

Gradients:

Unsatisfactory	less than 13.4%
Marginal	13.4%
Good	14.7%
Excellent	16.0%
Outstanding	17.3%

Performance Narrative:

Starting in FY 2001, LBNL switched to a "Laboratory and Industrial" energy reduction goal (above) specified in Executive Order 13123. Following this change, the Laboratory's energy use reduction for FY 2001 was 17.4 percent below that for the FY 1990 base year. This is a remarkable achievement, given that the most productive energy conservation projects were completed prior to the base year. Although currently ahead of schedule for achieving the FY 2005 goal, continued progress will be challenging, not only because of fewer remaining opportunities, but also because of increasing energy use intensities in many buildings.

Performance Rating (Adjectival)**: Outstanding** 95.00%

Criterion: #5.3 Energy Management

Energy initiatives are managed consistent with a comprehensive energy management plan.

(Weight = 5%)

Performance Measure: # 5.3.a Energy Goals

Energy goals accomplished/goals scheduled to be accomplished in accordance with the plan.

(Weight = 5%)

Assumptions:

The energy management plan will be made a matter of record on the first day of the fiscal year.

Gradients:

Unsatisfactory	less than 0.60
Marginal	less than 0.60
Good	0.70
Excellent	0.80
Outstanding	0.90

Performance Narrative:

All eighteen LBNL Energy Management Plan FY 2001 goals were accomplished. These included completion of facility audits and retrofit projects, maintenance of an Electrical Emergency Response Plan, qualification and application for an EPA Energy Star Label for B-937, specification of new equipment consistent with sustainable design and energy efficiency requirements, maintenance of an electrical recharge program and related efforts to support procurement of energy efficient products, operation of twenty-two electric powered vehicles, progress in installing a new laboratory-wide energy management control system, and promotion of employee energy awareness.

Performance Rating (Adjectival)**: Outstanding** 95.00%

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Performance Area: FINANCIAL MANAGEMENT

GENERAL ASSUMPTIONS FOR ALL FINANCIAL MANAGEMENT PERFORMANCE MEASURES

Assumptions:

Where appropriate, incorporate in the self-assessment historical trends as the data becomes available.

Note: Laboratory-wide cost savings initiatives require the highest level of visibility and Laboratory commitment. For this reason, Performance Objectives, Criteria and Measures (POCMs) addressing cost savings are included in the Laboratory Management POCMs instead of here in the Financial Management section.

Performance Objective: #1.0 Customer Focus and Satisfaction

Financial Management's practices are customer oriented. **(Weight = 10%)**

Criterion: #1.1 Methods to Evaluate Customer Expectations

Maintain systematic methods/programs to collect information and determine internal and external customer needs and levels of satisfaction. **(Weight = 5%)**

Performance Measure: #1.1.a Effectiveness of Methods

Degree to which effective and systematic methods to collect, document, and use customer feedback information are defined and deployed. **(Weight = 5%)**

Assumptions:

Identify internal and external customer groups. Describe what and how information is collected, frequency and methods of collection, and how the finance and budget organizations evaluate and improve their processes for determining customer satisfaction, requirements, expectations, and preferences in support of missions.

Gradients:

An Unsatisfactory rating will be given when no systematic approach is evident.\

A Marginal rating will be given when a systematic approach is in the beginning stages and major gaps exist in deployment that would inhibit progress in learning from customers.

A Good rating is achieved by developing and implementing the capability for systematically obtaining customer feedback. Factors that will be considered for a higher rating include:

? How well coverage of customer groups is identified.
? Methods used are effective customer communication tools.
? Customer learning strategies have continuity and are consistently deployed.
? Customer feedback is used to improve products/services provided to customers.
? Frequent/ongoing collection of customer feedback information.
? Formal processes used to collect, document, and use customer feedback information.
? Methods used are tailored to customer groups identified.
? Meaningful customer feedback obtained.

An Excellent rating is achieved by demonstrating that a fact-based customer improvement process is used with clear evidence that processes for gathering customer information have been improved over time.

An Outstanding rating is achieved by demonstrating that a very-strong, fact-based process is used with strong refinement and integration that is backed by outstanding analysis. In addition, the approach is deployed without any significant shortfalls.

Performance Narrative:

LBNL continues to exceed the expectations for this measure. They successfully identify their customer groups and improve their comprehensive and systematic approach for understanding their needs and requirements. LBNL successfully accomplished this through customer outreach, maintaining an open agenda item log, and an increased customer training and workshops. With this approach, LBNL is able to maintain the strategy that segments customers and identifies specific needs and expectations, also allowing the flexibility to adjust to customer requests. The CFO emphasized quality customer service in his internal values, making it the foundation of the staffs work ethic. This was included as requirements in all job descriptions, subsequently evaluated and measured for performance reviews. The CFO staff has shown their adaptability to revise the current processes and methods to meet the ever-changing customer environments and requirements.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Criterion: #1.2 Customer Satisfaction

Improved levels of customer satisfaction. **(Weight = 5%)**

Performance Measure: # 1.2.a Customer Satisfaction Results

Improved levels of customer satisfaction over time. **(Weight = 5%)**

Assumptions:

Describe most current levels and trends in key measures and/or indicators of customer satisfaction and dissatisfaction.

Gradients:

An Unsatisfactory rating will be given when no results or negative internal and external customer satisfaction trends are reported.

A Marginal rating will be given when results show early stages of trend development with only some improvements and/or Good performance levels in a few areas. Results are not reported for many to most areas of importance to customers.

A Good rating is achieved by demonstrating that internal and external customers are satisfied with the products and services provided.

Factors that will be considered for a higher rating include:

? Demonstrated improved or sustained high levels customer satisfaction.
? Customer satisfaction is maintained across most customer groups.
? No general dissatisfaction exists with primary products/services provided.

An Excellent rating is achieved by demonstrating that current performance is Excellent in most areas of importance to the customers' key business requirements. Most improvement trends and/or performance levels are sustained at a very good relative performance level.

An Outstanding rating is achieved by demonstrating that current performance is Outstanding in most areas of importance to the customers' key business requirements with outstanding improvement trends and/or sustained Outstanding performance levels.

Performance Narrative:

LBNL exceeds the expectations for this measure. Feedback from the internal customers indicated they are again very satisfied with the level of service provided. Similar to the survey conducted last year by the Budget Office, Accounts Payable division conducted a survey of internal and external customers, with a resulting rating of 4.15 (of a possible 5.0). The Accounts Payable division then developed and implemented plans to provide more efficient customer service. With DOE OAK interactions with CFO customers during meetings and other operational awareness activities, it is apparent that the customers have become much more reliant upon and satisfied with the Controller's services.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Objective: #2.0 Decision Support and Operational Effectiveness

Provide business information, expertise, analysis, and tools to enable effective managerial decision making and achieve cost effective and efficient financial management operations. **(Weight = 40%)**

Criterion: #2.1 Proactive Decision Support Activities

Provide decision support products, services, processes, and systems that promote effective managerial decisions. **(Weight = 25%)**

Performance Measures: # 2.1.a Quality Products and Services

Budgets and financial reports, and information, analyses, estimates, and proposals submitted will be evaluated for timeliness, accuracy, completeness, usefulness, clarity, and added value to decision making. **(Weight = 8%)**

Assumptions:

Routine Reports: The annual budget deliverables and internal and external standard periodic reports and analyses will be measured for timeliness, accuracy, completeness, usefulness, clarity, and added value to decision making. The Laboratory and DOE will identify key internal and external periodic reports and analyses that will be measured, and document as a Protocol, by October 1, 2000. During the year, additional reports may be jointly agreed to as necessary. A narrative will be provided to describe the products and services selected, continuous improvements, internal processes used for validation, and proactive activities related to this Performance Measure.

Gradients:

An Unsatisfactory rating will be given when no results or poor results with respect to both timeliness and quality of products and services are reported.

A Marginal rating will be given when results trend toward less timely performance rates, results are inconsistent, and/or results demonstrate a lack of effective decision support to management.

A Good rating is achieved by meeting customer needs and due dates for the products and services provided.

Factors that will be considered for a higher rating include:

? Proactive activities such as training and development of Financial Management's staff and customers, and coordination with other divisions/ organizations to address financial concerns.
? Good customer feedback, level of recognition, and other relevant information.
? Early submission of accurate and complete reports as identified.
? High quality information provided to management to make effective decisions.
? Demonstrated degree of influence on outcomes.
? Scope and degree of impact.

An Excellent rating is achieved by demonstrating improvement trends and/or performance levels that are sustained at high levels in some areas.

An Outstanding rating is achieved by demonstrating improvement trends and/or sustained Outstanding performance levels in most areas. Quality is high in most areas of importance to the customers' key business requirements.

Assumptions:

Ad Hoc Requests: The measurement will include internal and external ad hoc requests regarding budgets, financial information, analyses, estimates, and proposals submitted and proactive analyses and reports for executive and operational use. Products and services provided will be measured for timeliness, accuracy, completeness, usefulness, clarity, and added value to decision making.

Gradients:

An Unsatisfactory rating will be given when no results or poor results with respect to both timeliness and quality of products and services are reported.

A Marginal rating will be given when results trend toward less timely performance rates, results are inconsistent, and/or results demonstrate a lack of effective decision support to management.

A Good rating is achieved by meeting customer needs with a 90% on-time performance for ad hoc requests.

Factors that will be considered for a higher rating include:

? On-time performance greater than 90% for ad hoc requests.
? Good customer feedback, level of recognition, and other relevant information.
? Handling a higher volume or more complex requests.
? Proactive activities such as training and development of Financial Management's staff and customers, and coordination with other divisions/ organizations to address financial concerns.
? High quality, useful information provided to management to make effective decisions.
? Demonstrated degree of influence on outcomes.
? Scope and degree of impact.
? Proactiveness of providing analysis and reports for executive and operational use and DOE initiatives.

An Excellent rating is achieved by demonstrating that current performance is on time or early more than 90% of the time, and quality and usefulness is high in some areas of importance to the customers'

key business requirements. Improvement trends and/or high performance levels are sustained in some areas.

An Outstanding rating is achieved by demonstrating that current performance is on time or early more than 95% of the time, and quality and usefulness is high in most areas of importance to the customers' key business requirements. Improvement trends and/or high performance levels are sustained in most areas. Demonstrated significant impact on management decisions and effective analysis.

Performance Narrative:

LBNL exceeds the expectations for this measure. LBNL submitted their FY 2002 Budget Submission on time and consistently responded to DOE OAK periodic and ad hoc requests timely, with 100% on time or early. Proactive measures to ensure training and development of the financial management staff and customers were taken. In addition, improved coordination with other divisions and organization were demonstrated, reflecting the CFO's improved financial management leadership. This relationship has not always existed in the past, and in some cases, could be considered adversarial.

The financial system implemented at the Laboratory last year continues to produce high quality reports that inform Senior Management the information to make prudent and sound financial decision.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #2.1.b Leadership in Financial Information Systems and Decision Support Tools

Proactive leadership in improving financial information systems and decision support tools, in support of DOE and Laboratory initiatives. **(Weight = 12%)**

Assumptions:

A narrative will be provided to describe the Laboratory's progress in support of this criterion, to include the Financial Management Systems (FMS) plan and new or improved planning and/or decision support tools.

Gradients:

An Unsatisfactory rating will be given when no results or poor results are provided.

A Marginal rating will be given when only minor performance improvements are shown, results are inconsistent, and/or results demonstrate a lack of effective decision support to management and/or do not comply with DOE requirements.

Factors that will be considered for Good rating include:

? Timeliness of the FMS plan with acceptable quality as determined by customer feedback.
? Efforts are directed at initiatives which are most value added.
? Involvement in DOE's initiatives.
? Progress towards short-term initiatives.
? Demonstrated initiatives that improve decision support capabilities.

Factors considered for a higher rating include:

? Progress towards long-term initiatives.
? Proactiveness in seeking opportunities for supporting DOE initiatives.
? Improved capacities, capabilities, and/or cost efficiencies for other financial processes not addressed in measure 2.2.
? Positive customer feedback.
? Demonstrated advances in quality, accuracy, reliability, and usefulness of financial systems and decision support tools.
? Demonstrated degree of influence on outcomes.
? Scope and degree of impact.

An Excellent rating is achieved by demonstrating progress towards improving financial systems and/or decision support tools and long-term initiatives in most areas of importance to the customers' key business requirements, and proactiveness in supporting DOE initiatives.

An Outstanding rating is achieved by demonstrating improved capacities, capabilities, and/or cost efficiencies of financial information systems and/or decision support tools that are areas of importance to the customers' key business requirements. The financial systems and/or decision support tool improvements are linked to outcomes, results, and/or the degree of influence or impact on decision making.

Performance Narrative:

The Laboratory's annual update of Financial Systems Plan was prepared early in the calendar year and summary of accomplishments presented in the Self Assessment show sustained attention to Laboratory systems. The Laboratory continually evaluates plans and makes choices to direct resources to most value-added systems. However, not all gradients for Outstanding were met. There is no substantial evidence of positive customer feedback; there is no support that the Laboratory proactively sought to support DOE initiatives, and progress on the Accounts Payable and Purchasing systems has been slow. While the Travel Tracking system and travel report are prepared in response to DOE reporting requirements they do not broadly support DOE systems. Minimum gradients for outstanding were met resulting in a low outstanding rating.

Performance Rating (Adjectival)**: Outstanding**	90.00%

Performance Measure: #2.1.c Quality Processes

Evaluation of decision support processes for effectiveness in achieving outcomes and results. Showcase areas of excellence. **(Weight = 5%)**

Assumptions:

Narrative will describe how the processes add value, are timely, usable, and accessible. Areas to be showcased include financial management planning and execution processes in support of:

? Lab-wide federal budget development.
? Institutional budget development and forecasting (direct and indirect).
? Workforce planning.
? Ad hoc analyses.

Gradients:

An Unsatisfactory rating will be given if no results or poor results are reported.

A Marginal rating will be given when results demonstrate inconsistency, and/or results demonstrate a lack of effective decision support to management, and/or do not comply with DOE requirements.

Factors to achieve a Good rating include:

? Evidence that established processes are available to impact decisions,
? Efforts are directed at initiatives with most value added, and
? Processes ensure timeliness.

Factors considered for a higher rating include:

? Proactiveness in seeking opportunities for supporting DOE and Laboratory initiatives on decision making.
? Demonstration of progress towards long term initiatives.
? Demonstration of process improvements.
? Positive customer feedback, level of recognition, and other relevant information.
? Demonstration of progress towards effectiveness and efficiency.
? Demonstration of degree of influence on outcomes.
? Scope and degree of impact.

An Excellent rating is achieved by demonstrating progress towards decision support process improvements and long-term initiatives that are areas of importance to the customers' key business requirements, and proactiveness in supporting DOE initiatives.

An Outstanding rating is achieved by demonstrating improved capacities, capabilities, and/or cost efficiencies of decision support processes that are areas of importance to customers' key business requirements. The decision process improvements are linked to outcomes, results, and/or the degree of influence or impact on decision making. Sound systematic approaches to supporting management's decision making activities are demonstrated with strong fact based analysis. Improvement processes and strong learning and sharing tools are extensively deployed.

Performance Narrative:

Financial Services continued to provide quality planning and decision support to Laboratory program managers, especially in budget formulation, monitoring and review. The Project Management Tracking System, the Janus budgeting tool, and Integrated Reporting Information Systems are used to formulate the budgets and monitor costs. The institutional plan was updated and according to the Laboratory's assessment there was increased emphasis on variance analysis. Expanded use of the Human Resources Information system applications and educational opportunities contributed to effective work force management.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Criterion: #2.2 Transaction Processing Improvements

Reduce cycle times and/or costs. **(Weight = 15%)**

Performance Measure: #2.2.a Demonstration of Improvement

Evaluation of improvement trends for processes selected for improvement towards best practices as compared with benchmarking information. Showcase areas of excellence. **(Weight = 15%)**

Assumptions:

The Laboratory's finance and budget organizations will conduct benchmarking studies every two years. The Laboratory will analyze the benchmarking results and select processes to be measured and improved prior to the next benchmarking study. The Laboratory will present its study findings and areas selected for improvement to DOE and UC for concurrence. Additional improvement processes may be selected in conjunction with the DOE and UC. The Laboratory will also use the benchmarking information to select and demonstrate areas of excellence to feature in its self-assessment. Where necessary and appropriate, benchmarking measures will be augmented with qualitative information and other performance indicators for the selected processes. The selected processes will be measured and featured in the annual self-assessments using a gauge-reporting model during the two years between benchmarking studies.

Gradients:

2.2.a.1 Accounts Payable
(Weight = 6%)

2.2.a.1.a Percentage of Discount Dollars Taken
(Weight = 2%)

Unsatisfactory	63.50% or less
Marginal	72.60% - 63.51%
Good	81.70% - 72.61%
Excellent	90.80% - 81.71%
Outstanding	90.81% or more

2.2.a.1.b Percentage of Vendor Payments Made According to Order Terms
(Weight = 2%)

Unsatisfactory	67.99% or less
Marginal	75.99% - 68.00%
Good	83.99% - 76.00%
Excellent	91.99% - 84.00%
Outstanding	92.00% or more

2.2.a.1.c Cost Per Transaction (number of invoice lines)
(Weight = 2%)

Unsatisfactory	$7.47 or more
Marginal	$6.57 - $7.46
Good	$5.67 - $6.56
Excellent	$4.77 - $5.66
Outstanding	$4.76 or less

2.2.a.2 Payroll
(Weight = 4%)

2.2.a.2.a Cost Per Payroll Check or Notice Issued
(Weight = 2%)

Unsatisfactory	$6.89 or more
Marginal	$6.27 - $6.88
Good	$5.65 - $6.26
Excellent	$5.02 - $5.64
Outstanding	$5.01 or less

2.2.a.2.b Percentage of Employees Utilizing Electronic Deposit
(Weight = 2%)

Unsatisfactory	71.8% or less
Marginal	71.9% - 76.8%
Good	76.9% - 81.8%
Excellent	81.9% - 86.8%
Outstanding	86.9% or more

2.2.a.3 Travel
(Weight = 3%)

2.2.a.3.a Percentage of Travel Claims Processed Within Seven Days
(Weight = 1%)

Unsatisfactory	85.69% or less
Marginal	85.70% - 88.79%
Good	88.80% - 91.89%
Excellent	91.90% - 94.99%
Outstanding	95.00% or more

2.2.a.3.b Number of Days to Process Travel Claims
(Weight = 1%)

Unsatisfactory	8.01 or more
Marginal	8.00 – 6.51
Good	6.50 – 5.01
Excellent	5.00 – 3.51
Outstanding	3.50 or less

2.2.a.3.c Unit Cost per Travel Claim Processed
(Weight = 1%)

Unsatisfactory	$38.52 or more
Marginal	$35.30 - $38.51
Good	$32.07 - $35.29
Excellent	$28.85 - $32.06
Outstanding	$28.84 or less

2.2.a.4 General Accounting
(Weight = 2%)

2.2.a.4.a Number of Days to Close Ledger
(Weight = 2%)

Unsatisfactory	7.64 or more
Marginal	6.14 – 7.63
Good	4.64 – 6.13
Excellent	3.14 – 4.63
Outstanding	3.13 or less

Performance Narrative:

Transaction processing improvements and efficiencies were measured according to the ranges (gradients) mutually agreed upon in advance. Areas rated are Accounts Payable, Payroll, Travel, and General Accounting. OAK concurs with the Laboratory's assessment that outstanding results were achieved in these measures in FY 2001.

Performance in **Accounts Payable** was maintained at high level. Percentage of available discounts taken increased from 88.9% to 91.5%; an equal high percentage of payments to vendors were made according to terms; the cost per transaction was slightly lower than last year, $3.63 as compared to $3.74.

In **Payroll**, there was also a reduction in cost per payroll check issued, but the percentage of employees on direct deposit remained about the same at 88.6%.

Performance in **Travel** was sustained at high level with close to 100% of claims paid within seven days and the average days to process claims down to 1.53 from 2.6 last year. However, the cost per claim processed increased slightly from $24.95 to $25.18.

Monthly **ledger closing** was also maintained at a short two days. However, the high efficiency and cost effectiveness in transaction processing is probably partly due to the fact that CFO continuous to experience substantial turnover and vacancies in staff and management positions.

Performance Rating (Adjectival)**: Outstanding**	96.80%

Performance Objective: # 3.0 Financial Stewardship and Integrity

Financial Management's practices provide for financial stewardship, including compliance and data integrity. **(Weight = 40%)**

Criteria: #3.1 Costs and Commitments are Managed Properly

Ensure that all costs and commitments are within DOE-authorized funding levels and that costs and commitments expected to be in excess of such levels are properly reported and recorded. **(Weight = 10%)**

Performance Measures: # 3.1.a Costs and Commitments are Controlled to Appropriate Funding Levels

Effectiveness of the Laboratory to control costs to B&R Level 9 and control costs plus commitments within authorized major funding levels (Obligation Control Level). **(Weight = 5%)**

Assumptions:

"Within funding levels" is defined as within identified funding in the contract modifications.

"Commitments" are defined as uncosted balances under contracts awarded by the Laboratory that are set aside or encumbered, including purchase orders issued; contracts and subcontracts awarded, including the full liability under lease purchases and capital leases; termination cost for incrementally funded firm fixed price contracts, operating lease agreements, and multi-year service contracts that contain termination clauses; and other agreements for the acquisition of goods and services not yet received and uncosted balances related to other integrated M&O contractor liabilities.

Meeting the objective of this performance measure is applicable only at year-end for Construction, Operating, and Capital Equipment funds. Line item capital equipment and construction is applicable monthly. A narrative will be written to describe the Laboratory's performance relative to this measure. The narrative will identify the number of Obligation Control Level (OCL), B&R Level 9, line item capital equipment, and construction funding categories being measured.

Gradients:

An Unsatisfactory rating will be given when significant funds control problems are reported (i.e., an anti-deficiency violation occurred; or an OCL was exceeded).

A Marginal rating will be given when funds control results show two or more administrative control violations per program.

A Good rating is achieved by staying within funding levels as defined above.

Factors that will be considered for a higher rating include:

? Other proactive activities that improve the effectiveness of the Laboratory to manage and control funds.
? Controlling costs within funding levels identified in the contract modification for each accounting period.

An Excellent rating is achieved by demonstrating a sound, systematic method for managing and controlling expenditures and commitments against funding levels with clear evidence of refinement and improved integration.

An Outstanding rating is achieved by demonstrating a sound, systematic method for managing and controlling expenditures and commitments against funding levels with a very-strong, fact-based improvement process and strong refinement and integration.

Performance Narrative:

LBNL exceeds the objectives for this measure by maintaining costs and commitments within authorized funding levels (ECOR) and having processes in place to monitor and control costs at the B&R level 9 during the entire fiscal year. No reportable violations have occurred. In light of the discrepancies in the past 2 years, LBL has implemented numerous proactive activities and controls to improve the effectiveness of funds control. Communication between the Controller's staff and the programmatic administrators has improved, along with increased report analysis. With the joint effort of the divisions, the CFO is now able to more efficiently control costs.

LBNL has made significant progress meeting and exceeding the requirements of this measure by controlling costs and commitments within the identified funding levels. As they continue to improve the development of cost management reports and provide training and development program for financial managers and customers at the lab, the resource administrators become more efficient managers of their funds. The enhanced financial systems and updated reports lead to better cost decisions and control. For all these reasons, LBNL deserves an outstanding rating

Performance Rating (Adjectival)**: Outstanding**	92.00%

Performance Measure: #3.1.b Control of Funds

Evaluation of proactive activities designed for control of funds. **(Weight = 5%)**

Assumptions:

Narrative describing initiatives.

Gradients:

An Unsatisfactory rating will be given when no systematic approach is evident.
A Marginal rating will be given when a systematic approach is in the beginning stages and major gaps exist in deployment that would inhibit improvement of funds control processes.

A Good rating is achieved by implementing an effective, systematic process for mitigating administrative control of funds violations.

Factors that will be considered for a higher rating include:

? Process improvements.
? Control improvements and enhancements.
? Timely notification to DOE of significant changes in projected year-end uncosted balances.

An Excellent rating is achieved by demonstrating a sound, systematic method for managing and controlling expenditures against funding levels and administrative control levels with clear evidence of refinement and improved integration.

An Outstanding rating is achieved by demonstrating a sound, systematic method for managing and controlling expenditures against funding levels and administrative control levels with a very-strong, fact-based improvement process and strong refinement and integration.

Performance Narrative:

LBNL exceeds the objectives of this performance measure by demonstrating they have a process in place to avoid funds control violations. Some of the controls include providing automated reports to advise of potential cost overruns and meeting with project managers to analyze and identify potential cost overruns.

Enhancement of activities such as the soft closing of data each week and monthly funds control reviews, along with the improved relationships and meetings with programmatic division, has greatly improved the CFO's effectiveness to manage costs against funding and administrative control levels.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Criteria: #3.2 Financial Management Practices

Ensure that financial management and reporting practices fully disclose the results of operations and contain accurate, useful, timely information for program and fiscal management needs.

(Weight = 15%)

Performance Measure: # 3.2.a Financial Policies, Practices, Data, and Reports

Evaluation of the level to which the Laboratory's financial policies, practices, data, and reports comply with applicable DOE requirements. **(Weight = 15%)**

Assumptions:

Provide a narrative description of the effectiveness of the financial management and reporting practices performed to better manage DOE's requirements. Primary emphasis will be on the following accounts, activities, processes, initiatives, or reports identified by the Laboratory and DOE as high risk areas:

? Annual Financial Statements and Footnote Analysis.
? Annual Statement of Cost Incurred and Claimed Certification.
? Implementation of Federal Financial Accounting Standards.
? Account Reconciliations.
? Indirect Rate Management.
? Cost Accounting Standards (CAS) Practices and Disclosure Statement.
? Updated Contractor Financial Policies and Procedures.
? WFO Accounting Practices.
? Management of Delinquent Receivables.
? Travel Practices.
? Support for DOE's Standard General Ledger (SGL) Conversion.
? Effective Implementation of Safeguards & Security Cost Recovery Policy.

Gradients:

An Unsatisfactory rating will be given when no systematic approach is evident and/or significant noncompliance with DOE requirements is reported (i.e. augmentation, anti-deficiency, loss of Government assets/funds, violations or appropriation law, DOE financial statement qualifications, and fraud, waste, and abuse).

A Marginal rating will be given when a systematic approach is in the beginning stages and major gaps exist in deployment that would increase the Laboratory's risks relative to augmentation, anti-deficiency, loss of Government assets/funds, violations of appropriation law, DOE financial statement qualifications, and fraud, waste, and abuse.

A Good rating is achieved by demonstrating that a sound systematic method is deployed for managing financial management and reporting practices for all financial processes with emphasis on the high-risk areas to ensure that financial practices data, and reports are consistent with DOE requirements.

Factors that will be considered for a higher rating include:

? Positive results from internal/external audits.
? Proactiveness in monitoring the effectiveness of the Laboratory's current financial policies, procedures, and practices to ensure compliance with DOE requirements.
? Significant improvement in the financial practices of high risk areas.
? Improvement in the financial practices of other low risk accounts, activities, or processes while maintaining effective practices for high risk areas.
? Proactive interaction with the DOE with respect to financial management matters.

An Excellent rating is achieved by demonstrating that a sound, systematic method is fully deployed for managing all financial management and reporting practices in accordance with DOE requirements, with significant improvement or a sustained high level of performance in the practices of high risk areas, and proactive interaction with DOE with respect to financial matters.

An Outstanding rating is achieved by demonstrating that effective management practices exist over financial management and reporting practices. These practices ensure compliance with DOE requirements, proactiveness in self-monitoring, significant improvements in low risk areas while maintaining effective practices for high-risk areas. Documentation is maintained as a general practice to substantiate the effectiveness of the practices employed and to support the positive results from internal and external audits.

Performance Narrative:

This measure broadly tracts the extent of the Laboratory's compliance with various DOE initiatives and requirements. Twelve specific performance areas are listed. The Laboratory prperformed very well in many of areas under financial management. Reports and analyses for closing of Fiscal Year 2000 were timely. There was good interaction and coordination with OAK for preparing, and revising reports when necessary. The Statement of costs incurred and claimed was revised because of account treatment at DOE. However three years' statements were signed by the Office o Inspector General and posted in Fiscal Year 2000. Federal Financial Accounting Standard # 10, Accounting for Internal Use Software was successfully implemented.

Accounts Receivable, Work for Others, Account Reconciliation, Support of DOE's Standard General Ledger
Criteria for an excellent rating include . . . "fully deployed sound systematic method for managing all financial and reporting practices in accordance with DOE requirements. . . . and proactive interaction with DOE with respect to financial matters" Criteria for outstanding also include "demonstrating that effective managemenet practices exist over financial and reporting practices. . . that insure compliance with DOE requirements" and "pro-activeness in self-monitoring. . ."

Berkeley did not meet the gradients for excellent or outstanding in the areas of Accounts Receivable and Work-for-others accounting practices. There is room for improvement in proactive-interaction with OAK and there was little progress in completing reconciliations of DOE and Laboratory accounts.

During the year Berkeley's delinquent receivables increased substantially; delinquent accounts were not turned over to DOE for referral to Treasury before they became past due according to DOE requirements and we noted errors in the quarterly reports submitted to DOE.

The Laboratory made good progress in resolving systems problems and closing out old Work for Others orders. However, the dollar amount and number of projects funded by U.C. "bridge" funds increased during the year indicating projects were not consistently managed to assure maintenance of advances from sponsors.

OAK believes the difficulties in this area are primarily due to staffing problems including turnover, vacant positions, reorganizations and inadequate training. Coordination between Laboratory and various DOE teams has not been adequate to keep accounting tasks synchronized and data reconciled. There have been recurring misunderstandings related to routine activities like collections and deposits, estimates and drawdowns of Nuclear Waste funds, and resolving monthly edits.

OAK suggests LBNL encourage financial staff to interact more with OAK and other DOE staff and attend DOE training and meetings. The annual Financial Statement Workshop usually held in the summer is an excellent way for Laboratory staff to become more knowledgeable about DOE, its systems and reporting requirements and how the Laboratory fits in as an integrated contractor. Becoming more familiar with overall financial activities and requirements imposed on public Government agencies, including DOE, would provide Laboratory staff with better understanding and appreciation for their part in meeting those requirements.

Cost Accounting Standards (CAS) Practices and Disclosure Statement
During FY 2001, LBNL restructured it cost distribution system for FY 2002.

The revisions made reflected accounting practice changes approved by DOE OAK or other necessary disclosures not involving accounting practice changes. LBNL's guiding objective in the restructuring process was to simplify the rate structure allowing for improved budget development and execution, as well as attempt to minimize end of year variances between actual costs and recoveries. LBNL will continue an on-going self-evaluation process during FY 2002. In addition, two areas that were proposed but withdrawn from LBNL's final proposal are cost distribution practices involving the allocation of space (now Facilities Use) costs and electricity costs to final cost objectives. The accounting practice change proposal was submitted timely and according to contract requirements. Additional changes were made but these were communicated to OAK. An initial cost impact proposal was submitted on the August 15th 2001 date agreed to. Our analysis however, disclosed that additional information was necessary to assess the impact of the existing structure using FY 2002 cost data. Subsequent to our meeting a cost impact proposal with supporting detail was submitted on August 31, 2001 which allowed us to complete our analysis and approval.

During the year, periodic liaison meetings were conducted between Financial Services/Cost Accounting staff and OAK Business Evaluation and Performance Division.

As in past year's, LBNL continues to take measures to make available electronically and train employees in CAS practices. LBNL Financial Services self-assessment indicates CAS compliance is monitored on an ongoing basis through discussions and reviews performed on various indirect budgets. LBNL however, does not have any written policies or procedures or perform periodic reviews that address its CAS compliance program. LBNL indicated, mainly its compliance is part of day to day activities, especially when responding to questions from the field. Accordingly, the extent of testing and documentation reviewed to assure actual financial practices are consistent with disclosed practices are not readily apparent.

Indirect Rate Management

During FY 2001 LBNL successfully implemented a provision of the FY 2001 Energy and Water Development Appropriations Act which restored LBNL's ability to assess the Environmental Management program funds for Laboratory Directed Research and Development (LDRD). As a result, through collaboration with DOE OAK, LBNL re-established an institutional general and administrative (G&A) rate, inclusive of EM programs.

During FY 2000 at the request of the DOE Chief Financial Officer, we completed a review of LBNL's Overhead Expenditures for Fiscal Year 1999. Our review concluded that the overhead categories of costs were reasonable, appropriate and in accordance with Congressional mandates and Departmental fiscal policy except for the unresolved items of costs relative to the appropriate use of overhead funds for selected non-capital alterations and institutional initiatives. Our report recommended LBNL develop and implement a policy which defines a material versus a non-material cost/rate variance by indirect expense pool and implement actual practices compliant with LBNL's disclosed practice to allocate material variances back to the projects in proportion to the initial charges received. During our validation effort we inquired as to the status of the policy on variances. LBNL has not yet finalized a new written policy but provided us with its FY 2001 Final Close Indirect Cost variances which indicate a recognition of and improvement in the labs ability to manage indirect costs and recovery by indirect expense pool. To achieve the improvement, LBNL modified provisional rates during the year to achieve the smaller variances. During our validation effort LBNL FS/Cost Accounting staff indicated their lessons learned and ways to improve the process in the future.

Effective Implementation of Safeguards and Security Cost Recovery

During FY 2001, the EWD Appropriations bill began funding Safeguards & Security (S&S) as a direct program, but required a mechanism to recover costs for S&S supporting Work-for-Others. This funding change required a cost accounting practice change relative to indirect costs at LBNL. We received various proposals from LBNL on its implementation and our evaluation resulted in the identification of the following issues and concerns:

1. Fragmentation of the General & Administrative rate between WFO and non-WFO
2. Establishment of rates to recover only forecasted pool costs without an explicit S&S recovery
3. FY 2002 to FY 2005 rates which do not appear to treat S&S as an ongoing, permanent direct program
4. Discrepancy in the WFO forecasted amount used for rate development versus cost recovery purposes
5. Potential for over recovery of indirect costs due to differences in the initial and revised WFO base forecasts
6. Different accounting treatment for S&S costs funded by Office of Science versus WFO
7. Mandatory versus optional use of B&R WN-05 and ZN-05

Subsequent to numerous meetings and dialogue with LBNL management and external consultants we received and approved a proposal that was satisfactory to DOE. The final proposal was developed and implemented in a way to satisfy HQ guidance and address the issues and concerns raised by OAK. During our validation efforts in November 2001, LBNL provided OAK its assurance that its final S&S variance was only $6,000 indicating the accuracy of its cost projections and actual experience.

Performance Rating (Adjectival)**: Excellent**	83.00%

Criteria: #3.3 Effective Internal Controls and Compliance

Provide for effective internal controls and ensure timely and effective resolution of identified weaknesses. **(Weight = 15%)**

Performance Measure: #3.3.a Internal Controls and Compliance Process Management

Degree to which an effective system for identifying, reviewing, and correcting (if identified) financial management internal control and compliance processes is maintained. **(Weight = 15%)**

Assumptions:

Describe and self-assess the internal controls and financial management techniques employed to minimize and mitigate risks for the major financial management processes. The Laboratory will perform the self-assessment according to Oakland Operations Office, Assessment Management Plans (AMPS). To avoid duplication, the finance organization will either self-assess or rely on recent internal or external audits, reviews, or assessments of relevant activities.

Gradients:

An Unsatisfactory rating will be given when no systematic approach is evident and significant internal control weaknesses are reported.

A Marginal rating will be given when a systematic approach is in the beginning stages and major gaps exist in deployment that would increase the Laboratory's risks relative to internal controls weaknesses with respect to compliance with DOE requirements and Federal regulations.

A Good rating is achieved by describing the existing systems and processes that are utilized for identifying, prioritizing, and validating the effectiveness of the internal controls and ensuring compliance in accordance with DOE requirements. Internal control weaknesses and corrective actions taken are identified.

Factors that will be considered for a higher rating include:

- Demonstrated process improvements.
- Aggressiveness in resolving identified findings and weaknesses.
- Effective process for identifying and validating key internal controls and ensuring compliance with DOE requirements.
- Proactive leadership in self-disclosing and correcting internal control weaknesses and internal audit findings.

An Excellent rating is achieved by demonstrating a well documented process for identifying and validating the effectiveness of key internal controls and process for ensuring compliance and the proactiveness in resolving identified findings and weaknesses.

An Outstanding rating is achieved by demonstrating that an effective process is maintained to prevent and detect major risks and/or process improvements are linked to positive results, and the aggressiveness of resolving control weaknesses and findings.

Performance Narrative:

Overall during FY 2001, we observed LBNL Financial Services demonstrating an increased awareness of internal controls and the need for management to be proactive in identifying and strengthening those areas where improvements are necessary to mitigate risk exposure.

Internal controls provide reasonable assurance that the following organizational objectives are being achieved:

- Effectiveness and efficiency of operations,
- Reliability of financial reporting, and
- Compliance with applicable laws and regulations

To evaluate LBNL's internal controls self-assessment we used the five standards for internal control established by the General Accounting Office which are: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communications and (5) monitoring.

1. Control Environment
LBNL has positively changed the control environment during FY 2001 by providing an Internal Control Education seminar. During the seminar top management from Financial Services, Administrative Services and Internal Audit jointly spoke to demonstrate the commitment of LBNL management to improve internal controls and the role of each employee in the process. PricewaterhouseCoopers facilitated the one-day seminar which addressed internal controls and business risk management. The course was highly regarded and well attended. DOE OAK BEPD attended the seminar held in April 2001. The definition of internal control provided was the "process designed to provide reasonable assurance that LBNL business objectives are achieved" in the following categories:

- Effective/efficient operations
  - Achievement of cost and performance goals
  - Safeguarding of resources
  - Without waste or material loss
  - Reliable management information
- Reliable financial reporting
  - Protecting credibility and reputation
- Compliance with laws and regulations
  - Protecting LBNL's reputation and access to public funds

2. Risk Assessment
Risk assessment involves an assessment of risks associated with achieving the organizational objectives from both internal and external sources. During our validation effort we obtained a copy of the General Accounting Monthly Risk/Assessment Control Matrix. Also, we obtained a sample of an Accounts Payable Monthly Risk Prioritization.

3. Internal Control Activities
Internal control activities help ensure that management directives are carried out and represent the policies, procedures, techniques, and mechanisms taken to address risks. LBNL risk assessments identified the compensating control activities in place to mitigate the identified risks. For example, LBNL is developing standardized reconciliation formats and procedures for all FMS trial balance accounts. A reconciliation status report will be created to list general ledger control accounts and cross-reference them to their related subsidiary and DOE account. Also, FS developed interim Resource Adjustment Procedures dated May 1, 2001. During our validation effort we obtained a copy of the procedures. The procedures address the documentation, review and approval process. The procedure states resource adjustments should only be made when it is (1) necessary, (2) appropriate and (3) fully documented and justified.

4. Information and Communication
For LBNL to run and control its operations, it must have relevant, reliable, and timely communications relating to internal as well as external events. Managers need both operational and financial data to determine whether they are meeting their strategic and annual performance plans and meeting their goals for accountability and effective and efficient use of resources.
For example, FS is in the process of developing a Financial Control Status Report to provide indicators of delays in the reconciliation process and disposition of reconciliation items. Development of this report is in response to a finding in the Year-End Reporting audit for FY 1998.

5. Monitoring
Internal control monitoring should assess the quality of performance over time and ensure that the findings of audits and other reviews are promptly resolved. Ongoing monitoring should be part of the course of normal operations and performed on a continuous basis. Monitoring should include policies and procedures for ensuring that the findings of audits and other reviews are promptly resolved. The resolution process begins when audit or other review results are reported to management, and is completed only after action has been taken that (1) corrects identified deficiencies, (2) produces improvements, or (3) demonstrates the findings and recommendations do not warrant management action. LBNL's FS maintains a log of all audits conducted in the Controller's Office during the fiscal year as well as an Internal Audit Action Log. The action log was not very detailed, however. For example, the log provided during our validation indicated no "action required" under the payroll processing audit. Accordingly, while we did see evidence of FS responding to current findings, the timeliness of resolving some prior year findings remains a concern.

LBNL and DOE agreed for FS to self-assess the following areas

1. Electricity Charging Practices
The self-assessment report addresses how the Facilities Department establishes the surcharge rates and the fact that the Budget Office developed a white paper in 1997, which is currently under review, on electricity charging practices. During FY 2002 we will look at this area from a cost accounting practices perspective.

2. Operating versus Capital Expenditure Funding Determinations
IAS is in the process of performing a review of this area, the results of which have not been finalized. However, preliminary indications are there are various areas in which internals controls will need to be strengthened.

3. Practices for Self-Constructed Assets.
LBNL's self-assessment indicates fabrications performed on behalf of other national laboratories are deemed as work performed for LBNL, as LBNL scientists may use other laboratory facilities for research. During our liaison meetings with LBNL we discussed our interpretation of what a self-constructed assets is. A revised policy was issued incorporating the correct interpretation of a self-constructed asset project.

4. Reconciliation of Reimbursable and Cooperative Work Revenues
FS developed a corrected query to provide the appropriate data for reconciliation of Laboratory and DOE FIS (MARS) data. During our validation effort LBNL indicated they would use this query in extracting the necessary data for our FY 2001 pricing review.

5. Distribution of Royalty or Other Income from Technology Transfer Activity
The report, Tracking of Technology Transfer Third Party Receipts, did not sufficiently provide visibility for income distribution consistent with LBNL's Institutional Plan. The issue, it appears, has to do with "cash" versus "accrual" basis of accounting.

LBNL Internal Audit Services (IAS) completed and issued the following audit reports during FY 2001. DOE OAK's comments on the reports are as follows:

1. Project and Contract Management. IAS performed the audit to evaluate regulatory compliance, adequacy and effectiveness of internal controls and certain key procedures for Institutional Capital Projects. The activities evaluated included: construction planning, design, bid and contract award, contract modification, contract administration, and project finalization. IAS found satisfactory internal controls and procedures in the areas of project and contract management, bid and contract award, contract administration, construction administration, contract modifications (change orders), construction project closeout, quality assurance, and records management. Appropriateness of funding determinations were no part of the scope of this audit.

2. Technology Transfer. IAS performed the audit to assess the adequacy of the internal controls and procedures involved in the technology transfer processes. In general, IAS found satisfactory internal controls and procedures over technology transfer activities. However, audit recommendations were made to:
   - Move forward on initiatives to improve patent expense accounting and the rebilling process
   - Use PeopleSoft to improve revenue accounting and receivable administration/collection.
   - Financial Services Department should ensure the accuracy of licensing accounting data provided to the Technology Transfer Department
   - Restrict access to computer hardware and operating system

- Transfer computer hardware custodial responsibilities and system administration to the Information & Computer Sciences Division

IAS indicated management satisfactorily responded to all issues by agreeing to enhance internal controls or implement corrective measures.

3. Payroll Processing. Payroll processing is defined as the process of effecting payments to employees for their services and accumulating and reporting payroll-related information to interested parties in compliance with various laws, regulations and contractual requirements. For calendar year 2000, the Payroll Department generated 4,194 Annual Statement of Wages and Taxes (W-2's) totaling $168 million. IAS conducted the audit to determine whether or not:

- Gross pay, withholdings, deductions, and net pay were correctly computed and were within contractual requirements;
- Payroll costs and related liabilities were correctly accumulated, classified, and summarized in the accounts in the appropriate period;
- Controls have been established to ensure that payroll is in compliance with all applicable laws and regulations; and
- Proper segregation of duties exists in payroll processing.

The audit report concluded that except for the conditions noted, the internal controls over payroll processing are sufficient to provide reasonable assurance. However, IAS recommended internal controls and procedures in the following areas should be improved:

- Improve process to prevent overpayment to monthly employees.
- Enforce timely reporting of percent time changes paid to Graduate Student Research Assistants (GSRA).
- Adjust payroll earnings for salary overpayment that is subject to collection.
- Revise the formula to calculate partial month payment
- Document the various payroll processes to ensure continuous and accurate processing of payroll transactions.
- Eliminate access rights to payroll records by ISS personnel because of incompatible functions and establish a review process to monitor online changes.
- Implement an online retroactive certification for LETS (Laboratory Employee Electronic Timekeeping System) hours not approved.
- Improve process to properly, accumulate, classify, and summarize payroll taxes and deductions.
- Document monthly reconciliation of payroll data processed by the Payroll System with the Labor Distribution Reporting System.

Management satisfactorily responded to the issues by agreeing to enhance internal controls or implement corrective measures.

4. Cost Allowability-Fiscal Year 2000. IAS conducted this audit to review LBNL's compliance with the allowable cost provisions of Contract 98 in effect for FY 2000. The audit confirmed LBNL's management assertion on the Statement of Costs Incurred and Claimed for Fiscal Year 2000 that all costs were allowable, allocable, and reasonable in accordance with contract requirements. The internal control procedures for selected costs incurred were found to be adequate to ensure that unallowable costs were not claimed by LBNL. The audit found no unallowable costs

but found an invoice that included the payment of $73 is sales taxes. The amount was subsequently recovered from the vendor

Overall, while most IAS reports concluded satisfactory controls exists, the Payroll Processing audit indicated numerous control issues. In addition, while significant progress has been made during FY 2001, continuing control issues exist regarding the timeliness of various validations, reconciliations and implementation of corrective actions. We believe, however, through concerted efforts to train employees, LBNL is developing the foundation to sustain improved performance in this area.

Performance Rating (Adjectival)**: Excellent**	82.00%

Performance Objective: #4.0 Learning and Growth

Managing the work force in a manner that ensures personnel are qualified and effective.
(Weight = 10%)

Criteria: #4.1 Work Force Management

Develop and maintain an effective Financial Management work force. **(Weight = 10%)**

Performance Measure: #4.1.a Effective Work Force Management

Evaluation of Financial Management organization and processes resulting in an effective work force.
(Weight = 10%)

Assumptions:

Narrative that describes the Financial Management organization structure, work force development plans, training activities within the Financial Management organization, employee satisfaction, staffing and skills mix plans, strategic planning, and other activities resulting in improving the work force.

Gradients:

An Unsatisfactory rating will be given when no systematic approach is evident, when only anecdotal information is provided, and no results are reported.

A Marginal rating will be given when a systematic approach is in the beginning stages and major gaps exist in deployment that would inhibit improvement of work force management practices, with only some improvements.

A Good rating is achieved by establishing and maintaining a systematic approach to effective financial work force management, with employee productivity improvement trends in many areas.

Factors that will be considered for a higher rating include:

? Merging of related functions.
? Training and development activities of non-financial organizations and other institution-wide initiatives.
? Major cost and staffing reductions not negatively effecting performance.
? High level of employee productivity is maintained.

An Excellent rating is achieved by demonstrating a sound, systematic method for effectively managing the Financial work force with clear evidence of refinement and improved integration, with employee productivity trends in most areas.

An Outstanding rating is achieved by demonstrating a sound, systematic method for effectively managing the Financial work force with a very strong, fact-based improvement process and strong refinement and integration, with a high level of employee productivity maintained.

Performance Narrative:

Overall, there is evidence of a change in strategy and tactics that is taking root in the Financial Services organization in the area of work force management. The focus is on providing high level customer service and the achievement of goals and objectives while maintaining effective operations.

Organization Structure
The Financial Services (FS) Department, Controller's Organization has undergone a major reorganization as well as changes in key personnel leading the various sub-organizational units. The Controller's Office is comprised of Accounts Payable, Cost Accounting, General Accounting and Financial Analysis.

Since 1994, the Controller's Office costs as a percentage of total LBNL costs decreased from .93% to .67%. The most substantial decrease occurred between 1994 and 1996, from .93% and .72%, respectively.

Staffing and Skills Mix
The headcount for FY 2001 was 36 employees which represents a 23 percent reduction from 47 employees in FY 1994. The number of employees has been relatively stable since reaching 38 employees in 1996. The major change has been in the proportion of employees in transaction processing versus decision support positions. Currently, 24 employees (or 67%) are in decision support positions and 12 are in transaction processing activities. In FY 1996 the mix was 20 decision support (53%) and 18 transaction processing positions. LBNL attributes the changes to system improvement processes and streamlined procedures.

Workforce Management
Workforce management in FS is based upon four key strategies. The goal, objectives and strategies were consistently reviewed and discussed during FY 2001 in one-on-one meetings and weekly staff meetings. The management strategies outlined are as follows:

- Leadership and Management

Use balanced leadership to emphasize customer service and achievement of goals and objectives while maintaining effective operations. During our validation effort we obtained a diagram of the balanced leadership model which encompasses knowledge, trust and coaching.

- Systems and Processes

Model and communicate supervisory skills, resulting in effective and efficient performance through productive working relationships. Also, realign the organization with core processes, review technical issues and implement corrective actions, and supplement annual performance appraisals with formal validations every 90 days. BEPD staff observed this as a major employee concern expressed at the Internal Controls seminar and FS in responding in a positive way.

- Operations

Implement effective and efficient processes to improve services and customer satisfaction. This entails defining core processes and services and ensuring operating plans address policies, procedures, parameters and performance.

- Communications and Growth

Build and demonstrate trustworthiness through open communication and value-added decisions.

During FY 2001 FS collaborated with HR Compensation to market-validate all positions within the department to develop market-based performance and salary standards. This has boosted employee morale and will allow some additional flexibility in awarding salary increases. FS worked with HR to conduct outreach recruitment efforts to diverse sources within the community. The workplace environment is being changed and training was provided with a strategy toward "valuing diversity."

Workforce Development

FS stated goal is to provide quality tools to ensure the workforce has the opportunity to develop skills, increase productivity and customer service and improve employee satisfaction. The management strategies to achieve this include strategic education and training, library development and linking performance measures to employee performance.

Strategic Education and Training Plan

A career-long learning program was launched for employees as a method to promote growth and development. The program resulted in the following planned improvements:

- An employee needs assessment survey to assess employee objectives for individual training
- Skills-based training to enhance technical skills
- Supervisor and communications-related education for improved leadership.
- Training on norms, values, and positive work habits

For example, all employees have been encouraged to attend Covey training of "7 Habits of Highly Effective People."

Library Development

The CFO encourages employees to enhance knowledge and skills by reading relevant materials. In this regard a library is being developed so employees will have access to recommended reading.

Linking Departmental Performance Objectives to Individual Performance

FS is developing a model for FY 2002 to ensure that employee performance is linked to the appropriate Appendix F objective for each department. FS recognizes the relationship between individual employee efforts and organizational success. We validated this during our review and found this linkage of performance measures to employee performance as a means of maintaining employee accountability for performance.

Employee Satisfaction

To improve the quality of work life for employees a new expanded flexible work schedule was introduced on a trial basis. 60% of FS staff now have the option of working a 9/80 schedule with every other Friday off. A review will be conducted after six months. During our validation effort, employees expressed a very high degree of satisfaction and increased employee morale as a result of this program. Also, FS continues to recognize exceptional performance in the form of Spot and Outstanding Performance Awards. The self-assessment report did not provide any statistical data or trends on awards given, however.

Overall, LBNL has demonstrated a sound, systematic approach for effectively managing the financial work force. Management has demonstrated a concerted effort to improve the effectiveness of the processes that are in place. The costs as a percent of laboratory costs has trended downward and the skill mix has been transitioning to decision support.

Performance Rating (Adjectival)**: Outstanding**	93.00%

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Performance Area: HUMAN RESOURCES

Performance Objective: #1.0 Effectiveness of HR Operations

Human resources programs, systems and processes support the Laboratory's programmatic and business needs. **(Weight = 100%)**

Criteria: #1.1 Compensation Programs

Compensation programs support the objectives of the institution and are administered in a manner that takes into account market considerations and internal equity. **(Weight = 20%)**

Performance Measure: #1.1.a Cost Competitive Compensation

The Laboratory has a cost competitive compensation system which contributes to attracting and retaining a quality workforce. **(Weight = 15%)**

Assumptions:

Human Resources, in collaboration with DOE OAK, will continue the systematic process begun in FY00 to validate the appropriateness and competitiveness of its compensation program. The validation process will continue with targeted job families from FY00 to ensure proper leveling, that identified levels are appropriately documented and delineated, and that the family is competitively priced.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achieve of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Project plans are implemented for job families not fully completed in FY00.

Excellent As a result of the above, measurable improvement is reflected in the alignment to market, or the appropriateness of market alignment is validated. Measurable

improvement does not necessarily imply a lower cost-to-market. Improvement could be demonstrated through improved benchmarking.

Outstanding — In addition, project plans or strategies are identified for new or improved programs, processes, or validation measures based on Laboratory needs. This may include, but not be limited to, assessing the need or desire for work on additional job families, a revised compensation philosophy and strategy, updating the salary administration manual and/or website, developing a proposal for incentive pay, etc.

Performance Narrative:

LBNL has continued in FY2001 to demonstrate its commitment to validating the methods and accuracy of its market pricing. The Laboratory completed the restructuring of the Science and Engineering (S&E) job family by further refining the two supervisory levels into those with "Significant Management Responsibilities" and "Major Management Responsibilities". In addition, the validation begun in FY2001 for the Computing Science, Engineering, and Environmental health and Safety (EHS) job families was further refined in FY2001 to ensure the accuracy of survey matching and map-over of employees. Validation was also initiated and completed within FY2001 to establish the functional structures for the Finance, Administration, Human Resources and legal divisions.

The S&E validation has resulted in an improved cost-to-market of 9.5 percent. For Finance, Administration, Human Resources & Legal, an increased lag to market of 4.35 percent was realized through the validation, however, LBNL management now has the confidence accurate data provides for its compensation management decisions.

LBNL has identified additional initiatives to undertake in FY2002, in continuing the effort to functionally align its structures to market and improve the communications of the compensation program. These include utilizing an alternative survey for the Life Sciences positions, validating the functions not yet reviewed, developing a communications plan on the laboratory's compensation program, and revising the salary administration manual.

Performance under this measure supports an Outstanding rating.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Performance Measure: #1.1.b Compensation Increase Plan (CIP) (LBNL)

The Compensation Increase Plan (CIP) proposal is comprehensive and timely. **(Weight = 5%)**

Assumptions:

An underlying principle of this measure is that the compensation program is market driven and rewards performance and productivity. Relevant employment populations are identified as either accountable or non-accountable for inclusion in the CIP.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good CIP addresses all of the elements and time requirements specified in the Appendix A.

Excellent CIP incorporates agreements reached for improvements from the previous cycle's CIP, and identifies early efforts at resolution of any special problem areas.

Outstanding CIP thoroughly addresses all of the elements specified in Appendix A and includes other relevant issues not previously specified, meets or exceeds in the agreed upon time requirements, and the CIP proposal can serve as a model for other organizations.

Performance Narrative:

The FY2002 Compensation Increase Plan (CIP) addressed all the elements required by Appendix A and the DOE guidelines, and reflected responsiveness to issues raised from previous CIPs. It was submitted two weeks past the required date, due partially to delayed receipt of survey data, although primarily due to circumstances internal to the Laboratory.

The Laboratory's performance under this measure is rated at Excellent. Although the submission was delayed, DOE was kept aware of the drivers and status, and was not prevented from providing a timely approval. LBNL's CIP has significantly improved in terms of quality, as well as its responsiveness to the relevant issues within the Laboratory compensation program, as reported under Performance Measure 1.1.a.

Performance Rating (Adjectival)**: Excellent** 82.00%

Criterion: #1.2 Employment of Minorities and Women

Undertake good-faith recruitment efforts to improve the representation of minorities and/or women in the workforce. **(Weight = 10%)**

Performance Measure: #1.2.a Employment of Minorities and Women

An assessment of planning and implementation of good faith efforts designed to improve recruitment and selection of minorities and/or women in high priority underutilized job groups. **(Weight = 10%)**

Assumptions:

"High priority" underutilized groups will be selected at the beginning of the assessment period by each laboratory. The following factors may be utilized for the designation of "high priority" areas: underutilization levels, availability levels, projected placement opportunities and typical size and diversity of applicant pools.

The Laboratory will continue to implement the principles set forth in its General Plan for Targeted Recruitment. Also, the Laboratory will develop targeted recruitment plans for each high priority, underutilized group that are designed to enhance the Laboratory's ability to recruit and select minorities and/or women in high priority, underutilized job groups.
Assessment Period: The assessment period for LBNL: for this Performance Measure will October 1, 2000 through September 30, 2001.

Targeting of High Priority Underutilized Groups: High priority underutilized groups for the Laboratory will be selected by the Laboratory no later than one month after availability data is available.
"Applicant" is defined as anyone who submits a resume and/or application that meets the minimum qualifications for any open high priority, underutilized position.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Targeted recruitment plans for each high priority, underutilized group(s) are developed.

Excellent Targeted recruitment plans were carried out substantially in the manner identified.

Outstanding In addition to the criteria for Excellent, the Laboratory will conduct quarterly analyses of employee selection procedures for the representation of women and minorities in the high priority underutilized job groups.

Performance Narrative:

LBNL identified Mechanical Technicians and Office Services as the High Priority Job Groups (HPJGs) for FY2001. Targeted Recruitment Plans were developed for each, identifying activities potentially attractive to applicants in the under-utilized categories. The approach taken by LBNL in identifying recruitment activities was to integrate the targeted activities into the broader recruitment/outreach efforts of the lab (i.e., the General Recruitment Plan), and advertise the General Recruitment Plan jobs through the targeted forums. While this approach provides greater exposure to the variety of available jobs that a recruitment source may cover, and is the most effective use of funds and recruiter time, the serious lack of applicants to the HPJG jobs may be an indication that these jobs require more of a spotlight. LBNL acknowledged this by adding additional community job fairs to its targeted recruitment activities when the lack of response to previous efforts was apparent in the analysis of the second quarter data.

LBNL's performance under this measure supports an Excellent rating. The HPJG's were identified and Targeted Recruitment Plans developed and implemented as required by the gradient. While LBNL did conduct quarterly analyses, the lack of data in one of the HPJG (C02) was a significant reason why the Outstanding rating was not achieved. As the Lab identified under "Successes/Shortfalls", the number of anticipated openings in C02 did not materialize and consequently only five positions were filled.

The aforementioned shortfall notwithstanding, it is obvious to DOE that LBNL's establishment of a Recruitment Unit has provided greater structure to the recruitment strategies responsive to this measure. As the sources are continually assessed these strategies should be the means of providing LBNL with progress towards full utilization of minorities and women.

Performance Rating (Adjectival)**: Excellent**	85.00%

Criterion: #1.3 HR Systems and Processes

Human resources systems and processes optimize the delivery of services with respect to quality and life-cycle costs. **(Weight = 15%)**

Performance Measure: #1.3.a

Identify HR systems and/or processes for improvement and describe implementation results. **(Weight = 15%)**

Assumptions:

The laboratory will use a variety of approaches for identifying HR systems and processes for improvement. These approaches may include customer feedback, employee surveys, cost-benefit analysis, work flow analysis, process mapping and/or benchmarking, etc. The purpose of the measure is to improve existing systems and processes, or implement new initiatives. Results may include accomplishments made in multi-year projects.

An HR System is defined as being a program within a major HR functional area, e.g., within the functional area of Employee Relations there are a number of systems performance management, grievance resolution, etc. An HR Process is defined as being a series of specific steps and decision points which carry out the activities associated with an HR system.

The Laboratory will discuss with DOE/OAK the systems/processes identified for review.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Identify one or two major systems and/or processes for review; action is initiated; and there is measurable progress or action taken.

Excellent As a result of the above, efforts are undertaken to streamline, outsource, enhance, or eliminate systems and/or processes identified for review.

Outstanding In addition, significant improvements are achieved, such as completion ahead of schedule, or conclusion of unusually complex projects.

Performance Narrative:

LBNL identified two processes for review under this measure in FY2001 – the performance review process and the process for calculating/manipulating compensation data.

- Performance Review Process – Given significant negative feedback on all aspects of the appraisal process, Human Resources obtained senior management support to analyze the value and effectiveness of the current performance review process. As a result of committee analysis, it was decided that the Laboratory would create a new process, rather than modifying the old. A working committee was assembled to develop a strawman of the new process, although deployment was delayed until FY2002.

- Compensation Software – In an effort to streamline the manual processes performed by the compensation staff, HR initiated a review of the various compensation software packages available. Watson Wyatt's Reward software was purchased, which will perform all the calculations required for LBNL's Compensation Increase Plan, will automatically adjust pay ranges, and will generate on-going and ad hoc reports. Although it will not be implemented in-house until FY2002, LBNL has utilized the system through the database Wyatt established for its validation of LBNL's non-technical job families.

LBNL's performance under this measure supports a rating of Excellent. Significant effort was applied to identifying and addressing improvements to the efficiency of the two identified processes. Although neither were fully deployed in FY2001, both progressed to a point that improvement is sufficiently evident. This was most notable in the implementation of the Rewards software, given LBNL's ability to utilize it through Watson Wyatt's database.

Performance Rating (Adjectival)**: Excellent**	85.00%

Criterion: # 1.4 Labor Relations

The Laboratory has effective labor relations programs. **(Weight = 15%)**

Performance Measure: #1.4.a

The Laboratory will timely process labor grievances and PERB complaints. **(Weight = 15%)**

Assumptions:

The following will be addressed in LBNL's self-assessment for this measure:
? Analysis of the timeliness of labor grievance and PERB complaint processing.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Timeframes for processing of grievances and PERB complaints are met at least 85% of the time.

Excellent In addition, there is an analysis of the processing and quality of these activities to determine the need, if any, for corrective action. If corrective action is necessary, it is effectively advocated.

Outstanding In addition, the Laboratory effectively concludes PERB cases and union grievances.

(Note: 1.5 is now part of Laboratory Management POCM 1.1.g)

Performance Narrative:

LBNL has continued to sustain Outstanding performance in the Labor Relations function. It has demonstrated timeliness in its responses to the significantly increased number of information requests received in FY2001, as well as in its grievance handling, and has demonstrated effectiveness in having received no adverse arbitration awards or PERB complaints. The various means by which LBNL analyzes the processing and quality of its Labor Relations activities has not disclosed the necessity of any corrective action. In addition, LBNL has successfully completed six collective bargaining negotiations, several involving local negotiations on lab-specific issues, and one in which the continuity of LBNL's merit-pay program was at issue. Although mediation was required to obtain the resolution of Technical Unit negotiations, LBNL has demonstrated that it has pursued its objectives in good faith and sought timely resolution of the issues.

Performance Rating (Adjectival)**: Outstanding**	95.00%

Criterion: #1.6 Workforce Excellence

Human resources contributes to the Laboratory's workforce excellence. **(Weight = 30%)**

Performance Measure: # 1.6.a Workforce Planning/Staffing

HR provides the Laboratory with data about workforce demographics. **(Weight = 10%)**

Assumptions:

HR will collect data about workforce demographics (job classification, appointment status, gender, age, reported reasons for termination, and tenure by division/department) and analyze this data for current and potential turnover. This information will be given to Laboratory Management and the major programmatic divisions.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Workforce analyses are conducted on a semiannual basis.

Excellent: In addition, trends are identified and communicated to Division management. HR recruiting objectives reflect issues identified through HR's analysis.

Outstanding: In addition, HR will partner with at least one Division/ Department to address issues identified.

Performance Narrative:

Human Resources has demonstrated in FY2001 that its role of supporting workforce planning at the Laboratory is becoming more established. It has continued to provide semi-annual reports to division directors on the demographics of their organizations, highlighting areas of interest. In FY2001 HR also began including data on the utilization of rehired retirees to ensure division managers were aware of their level of reliance on this employee group, which could be perceived as an alternative to succession planning. In response to receiving this workforce planning data, the Engineering Division and its Human Resources Center began partnering in FY2001 to initiate succession planning for Engineering's technical employees, with plans to address professional employees in FY2002.

The Laboratory's performance under this measure supports a rating of Excellent. Although the partnering required by the Outstanding gradient was achieved, the self-assessment did not demonstrate that HR met the requirement of the Excellent gradient, that recruiting objectives reflect the issues identified through HR's analysis. It was stated only that demographic reports were provided to the Recruitment Unit.

Performance Rating (Adjectival)**: Excellent**	85.00%

Performance Measure: #1.6.d Recruitment

HR contributes to the development and implementation of an effective recruitment program.

(Weight = 5%)

Assumptions:

HR will collect data to track the time span between when a position was opened and when it was accepted. For FY01, this data collection will only apply to the high priority, underutilized groups identified in Criterion 1.2. FY00 data will be used as the baseline for recruitment cycle timeframes.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated however results fall short of the expectations for the Good gradient.
Good	Data collection and analyses are conducted on a semiannual basis for high priority, underutilized job groups.
Excellent	In addition, during FY01, the average amount of time to fill open positions is improved by 5% over FY00 baseline data.
Outstanding	In FY01, the average amount of time to fill open positions is improved by 10% over FY00 baseline data.

Performance Narrative:

LBNL was required under this measure to collect data on the length of time taken to fill open High Priority Job Group positions, with the goal of reducing the time. The data was collected on a semi-annual basis for FY2001 and compared to FY2000 data. In the first half of FY2001, the time to fill Office Services positions was reduced by eleven days, but then increased by ten days in the latter half of FY2001. For Mechanical Technicians, the time increased by 44 days in the first half of FY2001, and was not captured for the second half, given the lack of hiring that occurred. LBNL's analysis attributes these variances to the motivation of hiring managers, which they perceive is lower in the second half of the year given a greater number of "business activities" taking managers attention, such as performance appraisals.

LBNL performance under this measure supports a rating of Good in that data was collected and analyzed for the HPJG's.

Performance Rating (Adjectival): **Good**	75.00%

Performance Measure: #1.6.e Foreign Nationals

HR provides effective services to the Laboratory on non-immigrant visas to ensure legality of status.
(Weight = 5%)

Assumption:

HR will collect data on the number of foreign national employees at the Laboratory, (including their visa type and visa status) and use this data to track visa extension and/or change of status requirements. This will be compared to baseline data of 9/30/00 using the same factors.
Gradients

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Data collection and analyses are conducted on a semiannual basis.

Excellent In addition, in comparing FY00 baseline data with FY01 data, more than 95 Percent of employees are in legal status.

Outstanding No foreign national employees are out of legal status during the fiscal year.

Performance Narrative:

Under this measure, LBNL was required to measure the effectiveness of its newly developed processes for monitoring the visa status of its foreign national employees. Data was collected on the visa type and status of each foreign national employee. In comparing the baseline of September, 30, 2000, to that of March 31, 2000, and September 30, 2001, LBNL maintained a rate of 100 percent of scholars in legal status.

LBNL is rated at Outstanding for this measure.

Performance Rating (Adjectival)**: Outstanding** 95.00%

Performance Measure: #1.6.f Delivery of Benefits Information

HR delivers benefit information to Laboratory employees in a timely and accurate manner.

(Weight = 10%)

Assumption:

The laboratory will use a variety of approaches for identifying Benefits systems and processes for improvement. These approaches may include customer feedback, employee surveys, cost-benefit analysis, work flow analysis, process mapping and/or benchmarking, etc. The purpose of the measure is to improve existing systems and processes, or implement new initiatives. Results may include accomplishments made in multi-year projects.

The Laboratory will discuss with DOE/OAK the systems/processes identified for review.

Gradients:

Unsatisfactory	Little or no effort has been demonstrated towards achievement of the performance measure.
Marginal	Some effort is demonstrated however results fall short of the expectations for the Good gradient.
Good	One or more major systems or processes is identified for review; action is initiated; and there is measurable progress or action taken.
Excellent	As a result of the above, efforts are undertaken to streamline, enhance, disperse, or eliminate systems/processes identified for review.
Outstanding	Significant improvements are achieved which materially affect the quality, accuracy, and/or timeliness of benefits services.

Performance Narrative:

LBNL was required under this measure to identify the Benefits systems or processes they would review to determine potential improvements through streamlining, enhancement or elimination. In March, 2001, LBNL discussed with OAK four processes they would review relative to the Benefits Call Center, established in FY2000:

1. To determine the quality and timeliness of Call Center operations, HR would track and analyze the number and ratio of live calls to voice mail, and the origin and nature of calls.
2. To improve benefits service delivery, Benefits staff were to be cross-trained on retirement counseling, health and welfare claims, and administration of medical and non-medical leaves of absence.
3. To enhance benefits service delivery to employees, special training sessions were to be provided to HR center staff as the first points of contact for employees requiring assistance.
4. To improve employee understanding and appreciation of benefits, written communications, internet web sites and "Brown Bag" programs were to be increased and/or enhanced.

LBNL's self-assessment demonstrated that the items above were achieved within FY2001. The number of live calls and voice mails received, and ratio of live calls to voice mail, were monitored to determine if calls were getting through to a live representative and handled efficiently. They achieved an average rate of 91 percent of calls answered live, and within 24 hours. In addition, the origin and nature of calls were tracked, and validated through customer surveys. Results formed the basis for determining where and what training needs existed, and were utilized in the planning of the "Brown Bag" sessions. Cross-training was provided to the Benefits staff to enhance service delivery, as well as trainng for HR Center staff to facilitate employee counseling on the Open Enrollment process and implementation of the new Temporary Employment policies. In terms of communication, LBNL utilizes a mascot, "Bene the Bee" to attend events as well as host the Benefits Corner in the LBNL newspaper, "Currents". In addition, the Benefits Web Site was enhanced to allow downloading of frequently used forms, get updated benefits information, and access links to more comprehensive sites like the University of California's "Benecom."

LBNL's performance under this measure supports a rating of Outstanding. LBNL was successful in implementing material enhancements to the current processes, and should be commended for the accomplishments it has achieved in its benefits administration between FY2000 and FY2001.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Criterion: # 1.7 Employee Relations

The Laboratory has an effective employee relations program. **(Weight = 10%)**

Performance Measure: # 1.7.a Employee Relations

The Laboratory has an effective approach to address employee relations cases. **(Weight = 10%)**

Assumptions:

Data on employee relations cases will be summarized and reported to management on a regular basis. HR staff will review and evaluate the information collected to determine whether problem areas exist and whether proactive interventions are required. Interventions including supervisory and management training and/or corrective action will be developed and implemented as appropriate.

The Laboratory will trend cases from employees by type of complaint and division/department, in order to identify the possibility of problem areas in need of corrective action. If statistically significant, the Lab will identify other demographic factors. Trending may include data from previous fiscal years for which data is available. Formal complaints include administrative reviews, grievances, formal mediation, litigation and external agency charges. It is acknowledged that formal complaints may result from multiple causes.

Gradients:

Unsatisfactory Little or no effort has been demonstrated towards achievement of the performance measure.

Marginal Some effort is demonstrated however results fall short of the expectations for the Good gradient.

Good Summary and Trend Data is collected in a formal manner and presented to management.

Excellent The data will be analyzed for trends that may reflect problems, e.g., poor business practice, or liability exposure.

Outstanding Based on the trend analysis, feedback is provided to Lab Management, and if applicable, Division/Department Management. Also, if applicable, HR will develop a recommendation for corrective action.

Performance Narrative:

LBNL continues in FY2001 to demonstrate Outstanding performance under this measure. Cases are tracked by issue and division, and reviewed on a quarterly basis by the Human Resources Department Head. For FY2001, the most frequent issues raised in cases were performance and misconduct, as they were in FY2000, however, the decrease by 13 percent in the number of cases is attributed to the continuing supervisory training LBNL has been providing on employee and labor relations skills. The analysis by division did not disclose trends in issues that warranted management intervention, and with the exception of one division, the number of cases remained consistent with FY2000 or decreased.

LBNL's performance under this measure supports a rating of Outstanding.

Performance Rating (Adjectival)**: Outstanding**	95.00%

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Perfomance Area: INFORMATION MANAGEMENT

Performance Objective: #1.0 Information Management Program

The Laboratory manages information resources on a corporate basis to improve the quality of its products, to add value to scientific programs and customer services, and to improve the Laboratory's work processes. **(Weight = 100%)**

Criterion: #1.1 Operational Effectiveness

The IM program provides cost-effective products and improved services. **(Weight = 30%)**

Performance Measure: #1.1a Operational Effectiveness

Evaluation of measurable improvements and cost-effective delivery of products and services. **(Weight = 30%)**

Assumptions:

Measurement deliverable - metrics indicating the information management program's accomplishments which have resulted in measurable improvements in the provision of cost-effective products and services. Additional description may be accomplished through reference to accessible work products or other existing Laboratory documentation.

The agreed to Information Management areas to be addressed by this Performance Measure:

- CIS-Desktop Support (Weight =15%)
- Average time to resolve/complete help requests (non-project calls) - Decreasing
- Percentage of MPSG help requests resolved/completed in 3 days. - Increasing
- Average engineer hours to resolve/complete tickets - Decreasing
- Establishment of a web based knowledge base for direct access by users with questions or problems. - In use. (In the longer term will reduce cost of providing desktop support)

- Telephone Services (Weight =15%)
- The telephone system will be maintained at an operational level 99%
- TSC will resolve 98% all repair calls on the first attempt
- TSC will maintain 98% customer satisfaction
- TSC will realize a cost savings/avoidance of $400k
- TSC will maintain a service order proficiency average of 1.5 hours per order and an average cost of $75.00 per order

Gradients:

Unsatisfactory	No results are demonstrated and little or no effort has been expended in establishing effective processes towards achievement of the performance measure.
Marginal	Results fall short of the expectations for the Good gradient however some effort has been made to establish effective processes
Good	Examples that demonstrate measurable improvement and cost-effective, IM services and products.
Excellent	Demonstrated results that contribute to institutional cost-efficiencies, savings, and improved operations.
Outstanding	External recognition of operational effectiveness or benchmarking that indicates best-in-class performance.

Performance Narrative:

Information Management (IM) continues to do an outstanding job reducing cost, while enhancing Information Technology Capital investment opportunities. In the focus areas covered by this Performance Measure, Telephone Services (TS), and Computing Infrastructure Support (CIS), the Laboratory has demonstrated outstanding improvements in services and provision of cost-effective services and products. The TS organization reports $610K in cost savings/avoidance for this rating period.

During FY2001 rating period LBNL's Telecommunications Services Center made outstanding contributions in support of LBNL's institutional mission by providing efficient, reliable cost effective, and quality telecommunications services. Six Telecommunications Services areas were the focus points of this rating period that as follows and resulted in the following outstanding achievements:

1. LBNL's Telecommunications System had a reliability and operational factor of 100 percent throughout the entire rating period and exceeded the performance requirements.

2. LBNL's Telecommunications Service Repairs were completed on the first attempt with customer satisfaction 99.9 percent of the time.

3. LBNL's Telecommunications Costs Per service Calls decreased from $99.96 to $61.00 over the past three years and has resulted in a 39 percent reduction in overhead cost for providing Telecommunications Services.

4. LBNL's Telecommunications Costs Savings for FY2001 was $610,000.00 as a result of renegotiating contracts with local/long distance carriers, establishing standards for contractor installation, establishing internal repair of telephone sets, reducing the number of paper telephone directories, and the implementation of an international telephone conferencing bridge.

In addition, the CIS Desktop Support capability improved significantly over the past year. The average time to resolve trouble calls decreased while the percentage of resolutions increased. Areas of focus during this rating period resulted in Outstanding performance and are as follows:

- The average time to resolve helpdesk request was less than 3 days.
- The percentage of request resolution within 3 days averages 88%.
- The time spent on help request decreased more than 3%.
- A Frequently Asked Questions Knowledge Base was started.

As a result, LBNL was able to extract the maximum value from the systems capabilities, while decreasing the overall cost of the service. The Telecommunications Services Center and Desktop Support has consistently operated an effective and efficient manner exceeding industry standards, while providing reliable and quality telecommunications services, at a significant cost savings/avoidance.

LBNL's Telecommunications Services, Systems and Network Department's operational effectiveness was outstanding, and exceeded the required performance objectives established between OAK, UC and LBNL during this rating period. As a result of their streamlining processes and renegotiating contracts with local/long distance carriers, LBNL realized a $610 thousand dollar cost avoidance and savings.

Performance Rating (Adjectival)**: Outstanding**	94.00%

Criterion: # 1.2 Customer Focus

IM products and services meet customer requirements. **(Weight = 30%)**

Performance Measure: #1.2a Level of Customer Service

Evaluation of customer service reviews and implementation of activities toward improvement. **(Weight = 30%)**

Assumptions:

Measurement deliverable: results of the customer service metrics.

The agreed to Information Management areas to be addressed by this Performance Measure:

- CIS-Desktop Support
- Average satisfaction overall from Help Desk ticket survey – Stable above 9.0 out of 10 or increasing
- % of tickets with response to any survey question of 5 or lower out of 10. - Decreasing
- % of phone calls to Help Desk answered by a live engineer (instead of voice mail or abandoned call) - Increasing
- % of help tickets resolved by Help desk at "first touch" - Increasing

Gradients:

Unsatisfactory	No results are demonstrated and little or no effort has been expended in establishing effective processes towards achievement of the performance measure.
Marginal	Results fall short of the expectations for the Good gradient however some effort has been made to establish effective processes.
Good	A systematic approach to the measurement of customer service. Evidence of meeting commitments to customer's requirements.
Excellent	Cost effective and/or innovative approaches to measuring customer satisfaction, customer involvement throughout life cycle of information management activities, and evidence of improvement in customer service.
Outstanding	Sustained high level of customer service.

Performance Narrative:

The IM Organizations agreed to meet the objectives for customer service by putting intuitive approaches in place that garner customer involvement, while improving overall customer satisfaction. In all cases, rewarding and relevant approaches were used.

Computing Infrastructure Support (CIS) Desktop Support maintained an outstanding level of customer satisfaction by actively reaching out to customers, providing cost efficient and quality service through the use of a mature and reliable process. Over the past three years, CIS has shown a steady improvement in their focus on customer service and as a result have gained customer confidence. During this year, three of the four metrics were implemented.

- The average satisfaction overall from ticket surveys is 9.6 on a scale of 10.
- The percentage of responses given a rating lower than 5 to any survey question is less than 1.
- The percentage of tickets resolved by the Help Desk at "first touch" is 55%.

The fourth metric measured the percentage of phone calls to the Help Desk answered by a "live engineer", as opposed to being dropped or abandoned or transferred to voice mail. The Automatic Call Distribution (ACD) software provides this information, which is associated with the telephone switch. Unfortunately, the expected system was not implemented this year, therefore the start of this particular metric has been postponed.

The customer response mechanisms introduced in the IM departments resulted in feedback that was subsequently used to adjust activities and create better plans. Several improvements were realized including more cost effective products and services.

Performance Rating (Adjectival)**: Excellent**	88.00%

Criterion: #1.3 IM Stewardship

The IM program manages compliance to requirements and negotiated commitments.

(Weight 20%)

Performance Measure: #1.3.a Effective Management of Compliance and Commitments.

Evaluation of effectiveness of compliance management for contractual, legal and regulatory requirements, operational practices and internal controls. **(Weight 20%)**

Assumptions:

Measurement Deliverable
Metrics demonstrating compliance with requirements of law, regulations, and applicable DOE directives.

The agreed to Information Management areas to be addressed by this Performance Measure:

? Unclassified Computer Security (Weight=15%)
- Achieving expectations in completing all aspects of DOE required format for CSPPs.
- Completing scans identified in the LBNL CSPP.
- Completing corrective actions identified after conducting scans.

? Printing/Reproduction (Weight=3%)
- % of total TEID jobs vended to GPO
- % of total in-house duplicating on recycled paper
- % of total in-house duplicating two-sided

? Records Management (Weight=2%)
- % of total inactive R&D records stored at the Federal Records Center that have been reprocessed and rescheduled.
- % of increase in total number of containers permanently removed from the Federal Records Center under authorized retention schedules.

Gradients:

Unsatisfactory	No results are demonstrated and little or no effort has been expended in establishing effective processes towards achievement of the performance measure.
Marginal	Results fall short of the expectations for the Good gradient however some effort has been made to establish effective processes.
Good	Management techniques are employed to assess the effectiveness of IM Focus Areas performance in support of programmatic and institutional information management needs including internal process controls. Objective evidence demonstrates progress in identifying and correcting performance and compliance issues. Previous deficiencies have been corrected or have corrective action plans in place.
Excellent	There is a sound, systematic approach responsive to the overall purpose of managing assessment processes and implementing corrective actions. Deficiencies in compliance and performance are self-identified and all corrective actions are completed or planned.
Outstanding	The Laboratory has institutionalized an evaluation process that effectively identifies performance and compliance issues and corrects weaknesses. Compliance and performance deficiencies are identified and corrected on schedule.

Performance Narrative:

The Unclassified Computer Security Department, and the Technical and Electronic Information Department (TEID) agreed to initiate internal controls and operational practices at LBNL that were committed to an institutionalized evaluation process in the area of effective compliance management. For FY 2001, it was agreed that the Computer Protection Program (CPP) would complete the objectives of the required risk and self-assessments in preparation for the scheduled revision of the Cyber Security Protection Plan in January 2002. It successfully identified performance and compliance issues and allowed for weaknesses to be corrected.

LBNL has made excellent progress in the evaluation of compliance management for Unclassified Computer Security (UCS). UCS exceeded its schedule for risk analysis, vulnerability scanning, and co-developed the Integrated Safeguards and Security Management (ISSM) program to create continuity between all aspects of security at the LBNL. A set of metrics for evaluating the ISSM program was developed, tested, and the results were analyzed for accuracy and adjustments were made to improve the scanning process. By formalizing the scanning process, vulnerabilities were reduced by 50 percent. The IISM evaluation metrics includes a “Host locator” program for finding the location and owner of host connections to LBLnet.

In addition, Intrusion Detection Systems were upgraded from 400 Hz to 900 Hz for faster network speeds and onsite cybersecurity training programs for users were instituted. The UCS program continues to perform at the outstanding level.

The Technical and Electronic Information Department’s (TEID) Archives and Records Office (ARO) and Printing Group has done an outstanding job in institutionalizing an evaluation process to identify performance and compliance issues and correct weaknesses. The ARO has continuously been

committed to an institutionalized, systematic, ongoing evaluation process in the area of effective compliance management. The agreed to areas for ARO to be measured resulted in:

- ARO assigned Federally approved Department of Energy and National Archive and Records Administration Record Schedules to documents.

- Developed and implemented new Record Schedules for LBNL records not currently covered.

- ARO has rescheduled and reprocessed 9,111 record containers using the approved Research and Development (R&D) Record Schedule. ARO began this project in January 2000 and has rescheduled 3,966 containers, or 43 percent of the total R&D records stored at the Federal Records Center.

- ARO identified those record accessions that were up for destruction, and by destroying or permanently removing 4,358 containers, avoided costs of $14,425 per year.

ARO made outstanding progress in meeting their agreement to reschedule the Research and Development records stored at the Federal Records Center to effectively comply with their requirements and negotiated commitments.

Technical and Electronic Information Department (TEID), Printing Officer continues to do an outstanding job in outsourcing jobs to the Government Printing Office (GPO). TEID continues to look for ways to vend more jobs through GPO.

In addition, the Printing Officer ensures that the Laboratory complies with the Joint Committee on Printing (JCP) regulations. The annual three-year printing report to DOE addresses those compliance issues. LBNL has also done an outstanding job in purchasing 83 percent of recycled paper in accordance with Section 101 of Executive Order 13101 of September 14, 1998.

LBNL continues to be in compliance with the laws, regulations and applicable DOE directives.

Performance Rating (Adjectival)**: Outstanding**	92.00%

Criterion: #1.4 Strategic and Tactical Planning

IM plans and practices are aligned with Laboratory strategic and tactical requirements.

(Weight = 20%)

Performance Measure: #1.4.a Planning Initiatives

Evaluation of evidence that Information Management is aligned with the Laboratory's missions.

(Weight = 20%)

Assumptions:

Measurement deliverable: IM plans or descriptions of IM initiatives that support the mission and plans of the Laboratory. Reference may be made to accessible work products or other existing Laboratory documentation.

The agreed to Information Management areas to be addressed by this Performance Measure:

? Information Architecture
- Revised Long Range IM Strategic Plan for LBNL--Information Architecture defining the standards for information sharing, technology standards, and data security and protection for operational information.
- Measurement of progress toward meeting these objectives with particular emphasis on the most critical objectives.
- Methodologies for obtaining user and management input to the planning process to assure agreement with the needs and objectives of the Laboratory.
- Methodologies for establishing funding to assure optimum use of resources toward meeting the critical objectives.

Gradients:

Unsatisfactory	No results are demonstrated and little or no effort has been expended in establishing effective processes towards achievement of the performance measure.
Marginal	Results fall short of the expectations for the Good gradient however some effort has been made to establish effective processes
Good	Evidence of a planning process exists that drives IM practices to align with the Laboratory's missions.
Excellent	Objective evidence has been provided to demonstrate that IM activities provide effective support for the Laboratory's missions.
Outstanding	Evidence that the IM planning process can adapt to changing conditions, employs sophisticated methods or planning tools, and has received external recognition or benchmarking that indicates best-in-class performance.

Performance Narrative:

LBNL is evaluating methodology for more streamlined information technology integration throughout the laboratory. In doing so, LBNL agreed to provide evidence that IM is aligned with the Laboratory's missions. LBNL has made outstanding progress toward meeting these planning objectives, and assuring agreement with the needs and critical objectives of the Laboratory.

The Laboratory Information Architecture Plan, which was a major advance from the previous strategic plan, was created. Current capabilities were evaluated, relevant technology trends identified, and specific recommendations made.

Berkeley Laboratory was the first among those within DOE to begin the implementation of the new PeopleSoft Grants and E-Procurement Systems. The PeopleSoft E-Procurement system will provide powerful new online procurement capability while the Grants system will provide the basis for significantly improved Work for Others tracking. Both systems will be fully implemented in FY 2002, culminating in the replacement of all financial systems with new modern technology.

The IT strategic plan was developed by a core team of six senior ISS/CIS group leads and department heads, in addition to 18 technical experts from the departments. All were involved in defining user requirements, identifying evolving needs and helping to develop cost-effective technical recommendations.

An Executive Steering Group was established under the new Operations Associate Laboratory Director to oversee the direction of the Laboratory systems initiatives. They were also charged with prioritizing the efforts and making funding recommendations. As a result of this effort, LBNL is well on its way to transitioning from the backwaters of information technology to a leading position.

Performance Rating (Adjectival)**: Outstanding**	92.00%

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Performance Objective: PROCUREMENT

Performance Objective: #1.0 Management of Internal Business Processes

The Laboratory shall have systems in place to ensure Procurement programs operate in accordance with policies and procedures approved by DOE and the requirements contained in Prime Contract Clause 8.1, Contractor Purchasing System. **(Weight = 65%)**

Criterion: #1.1 System Evaluation

The Laboratory conducts, documents, and reports, the results of a successful assessment of its purchasing system against established evaluation criteria. **(Weight = 30%)**

Performance Measure: #1.1.a Assessing System Operations

The Laboratory shall have a risk-based system evaluation plan (protocol) approved by DOE and UC no later than October 1, 2000. The procurement system shall be assessed against system evaluation criteria as identified in the plan. In addition, an aggressive, cost effective management plan for resolution of system deficiencies and opportunities for process improvement shall be developed. Management of the results of the system assessment shall be evaluated. System deficiencies will include those identified by the Laboratory, internal Laboratory organizations, and external organizations. **(Weight = 30%)**

Assumption:

The Procurement organization will provide in their annual self-assessment report, for information purposes only, the number and a brief description of critical processes reengineered/redesigned/revalidated. Such input will not be part of the rating process and will be used for Balanced Scorecard reporting purposes.

Gradients:

Unsatisfactory	There is not an approach to the primary purpose of the system evaluation and there are major gaps in deployment of the assessment process. Cost benefit analyses and risk assessments are not accomplished and opportunities for improvement are not addressed. Leadership involvement is not evident.
Marginal	There is a basic approach to the primary purpose of the system evaluation. Cost benefit analyses and risk assessments are applied to some deficiencies and opportunities for improvement are generally addressed. Remedial actions are pursued and leadership involvement is evident in some cases.
Good	There is a sound, systematic approach, responsive to the primary purpose of the system evaluation. Cost benefit analyses and risk assessments are good when addressing deficiencies and/or opportunities for improvement. Remedial actions are appropriate and demonstrate responsible leadership in many to most cases.
Excellent	The requirements for a "Good" rating are met. In addition, the approach is responsive to the overall purpose of the system evaluation and cost benefit analyses and risk assessments are good to excellent when addressing deficiencies and/or opportunities for improvement. Remedial actions are sound and demonstrate responsible leadership in most cases.
Outstanding	The requirements for an "Excellent" rating are met. In addition, the approach is fully responsive to all the requirements of the system evaluation and cost benefit analyses and risk assessments are excellent when addressing deficiencies and/or opportunities for improvement. Remedial actions are sound and demonstrate strong leadership in most cases.

Performance Narrative:

LBNL met the criteria for an Outstanding rating. The Laboratory continues to ensure that all purchasing activities comply with applicable laws, regulations, terms and conditions, ethical standards and good business management practices as evidenced by this year's results.

LBNL submitted the FY2001 System Evaluation Plan (SEP) on July 28, 2000 and a revision followed to incorporate UC comments on September 22, 2000. The SEP was approved by DOE shortly there after. The SEP details LBNL's approach and methodology for implementing procurement self-assessments during FY2001, while incorporating elements of the Balanced Scorecard. LBNL successfully developed, managed, and implemented a program of risk-based purchasing system evaluations in a manner fully responsive to the requirements of DOE and the approved SEP. The program evidenced clear, concise documentation of system audits, cost/benefit risk assessments, improvement opportunities, and prioritized corrective action management.

During FY2001, the procurement organization conducted a series of comprehensive system and/or transactional assessments each focusing on each of the following: Fabrications, Management System, Procurement Card Purchases, and One-time Purchases.

Fabrications Results:

The assessment occurred on December 5, 2000, with no major findings and only one observation. A risk assessment, for the observation, was performed and a corrective action plan implemented. Validation occurred on June 26, 2001 with no recurrence of the observation.

Management Systems Results:
The assessment was conducted on January 30, 2001 with no findings and only one observation; "Procurement faces a challenge of maintaining a coherent and seamless service organization for both internal and external customers." The observation did not result in a corrective measure. While the Procurement Management has changed twice during this rating period, the impact to the procurement system is minimal as evidenced in these years' results. However, future self-assessments will assist in determining if the procurement system is impacted by the reorganization.

Procurement Card Results:
The assessment occurred on April 19, 2001, with one violation of Laboratory policy. A risk assessment was performed and a corrective action plan implemented. Validation will occur on January 31, 2002.

One-Time Purchases Results:
The assessment occurred on May 31, 2001, with one observation. The assessment uncovered the use of an out of-date file checklist. The risk assessment was performed and a corrective action plan implemented. Validation will occur on December 31, 2001.

Two processes were streamlined during this past year: (1) the National Institute of Health (NIH) Consortium Agreement Demonstration project, which eliminates delays in Subcontract placement over the acceptability of Terms and Conditions; and (2) a blanket order for fabrications was established, which provides placement of Fabrications Subcontracts by Field Buyers, eliminating requisitions submitted to Procurement.

Performance Rating (Adjectival)**: Outstanding**	98.00%

Criterion: #1.2 Pursuing Best Practices

The Laboratory compares its operational effectiveness to benchmarking data and industry standards and establishes goals and gradients accordingly. **(Weight = 20%)**

Performance Measure: # 1.2.a Measuring Effectiveness

The Laboratory will be measured against benchmarks and industry standards for cycle time and utilization of alternative procurement approaches/techniques [e.g. Purchasing Cards, Verbal Orders, Just-in-Time (JIT) Contracts, Material Release System (MRS), Electronic Data Interchange (EDI), Blanket Orders, Leveraged Buys, Stores, and Low Value Purchases]. **(Weight = 20%)**

Assumptions:

The Procurement organization will provide in its annual self-assessment report, for information purposes only, cycle time results in two categories; less than $100,000 and greater than or equal to $100,000. Such input will not be part of the rating process and will be used for Balanced Scorecard reporting purposes.

The following formula shall be applied to measure the utilization of alternative procurement approaches/techniques:

Utilization of Alternative Procurement Approaches/Techniques =

$$\frac{\text{Number Of Transactions Placed Outside Of Procurement}}{\text{Total Number of Transactions}}$$

Gradients:

Cycle Time

Unsatisfactory	> 16.9 Days
Marginal	16.0 – 16.9 Days
Good	15.0 – 15.9 Days
Excellent	13.0 – 14.9 Days
Outstanding	< 13.0 Days

Alternative Procurement Approaches

Unsatisfactory	< 70.0%
Marginal	70.0% – 74.9%
Good	75.0% – 79.9%
Excellent	80.0% – 84.9%
Outstanding	≥ 85.0%

Performance Narrative:

LBNL achieved a cycle time of 6.4 days, which meets the criteria for Outstanding. The Laboratory continues to reduce cycle time and compares extremely well with the Center for Advanced Procurement Studies (CAPS), DOE benchmark of 9.7 days. This is a note worthy accomplishment given that the decentralization of the small value procurements, tend to increase the number of days as the procurement shop focuses on issuing complex subcontracts.

FY01 Results:
First Quarter Results: 6 days
Mid Year Cumulative Results: 6.9 days
Third Quarter Cumulative Results: 6.7 days
Fourth Quarter Cumulative Results: 6.4 days

Actions > $100,000 = 27.9 days
Actions ≤ $100,000 = 5.6 days

Prior Cycle Time History:

1999	7.2 days
2000	7.0 days
2001	6.4 days

Alternate Procurement Approaches/Techniques (APT):

The APT for this review period was 91.2 percent, which meets the criteria for Outstanding. The DOE benchmark is 73.8 percent.

FY	Total Transactions	APT Personnel Awarded
1999	45,900	32,919
2000	63,139	56,984
2001	62,343	56,868

Performance Rating (Adjectival)**: Outstanding**	95.00%

Criterion: #1.3 Supplier Performance

The Laboratory shall manage its suppliers in such a manner as to ensure that the goods and services provided meet the Laboratory's requirements. **(Weight = 15%)**

Performance Measure: #1.3.a Measuring Supplier Performance

The Laboratory shall measure the performance of its key suppliers. Supplier performance will be measured against goals and gradients agreed to below. **(Weight = 15%)**

Assumption:

In order to allow time for the Laboratory to work with its identified key suppliers, evaluation of the Laboratory's overall results will be based on the key suppliers' 4th Quarter performance.

Gradients:

Measuring Key Suppliers of Commodities

Unsatisfactory	< 76.0%
Marginal	76.0% – 80.9%
Good	81.0% – 85.9%
Excellent	86.0% – 90.9%
Outstanding	≥ 91.0%

Performance Narrative:

LBNL achieved 82 percent on-time delivery from key suppliers, which meets the criteria for Good. The Laboratory sought to manage its key suppliers (i.e. commodity vendors who receive a minimum of 20 orders and over $100,000 worth of Laboratory business in FY 2000) to a higher level of performance, using the percentage of on-time deliveries (percent of deliveries meeting the subcontract promised date) as the criteria, and FY 2000 results as the baseline. A total of 9 key suppliers were identified for FY 2001. While the Laboratory succeeded in ensuring that procurement deliveries met program requirements, this area has needs management attention. The Laboratory continues to pursue a long term goal of 90 percent, established in FY 1998.

Last year Procurement stated that, improvements to deliver performance of key suppliers were anticipated during the next evaluation period due to the hiring of a new Commodity Section Team Leader, who would focus greater attention on supplier activities. The Team Leader was hired during this performance period, and the results will be captured in next year's self-assessment.

Performance Rating (Adjectival)**: Good**	75.00%

Criterion: # 1.4 Socioeconomic Subcontracting

The Laboratory shall support and promote socioeconomic subcontracting programs.

(Weight = 0%)

Performance Measure: # 1.4.a Meeting Socioeconomic Commitments

The Procurement organization will provide in its annual self-assessment report, for information purposes only, the percentage of actual subcontract dollar obligations (not subcontract face value) in the following five categories: Small Business, Small Disadvantaged Business, Veteran-Owned Small Business, Women-Owned Small Business, and HUBZone Awards. Self-assessment reports will describe annual activities in support of the socioeconomic program. Such input will not be part of the rating process and will be used for Balanced Scorecard reporting purposes. **(Weight = 0%)**

Assumptions:

Obligations qualifying in more than one category may be counted in more than one category, e.g., Small Business and Small Disadvantaged Business. Lower tier subcontracts cannot be counted toward the primary goal, but may have their own objectives and be reported separately.
The purchasing base for purposes of this measure is all obligations incurred during the fiscal year period, excluding: (1) Subcontracts with foreign corporations which will be performed entirely outside of the United States; (2) Utilities (gas, sewer, water, steam, electricity and regulated telecommunications services); (3) Federal Supply Schedule Orders when all terms of the GSA contract apply; (4) GSA Orders when all terms of the GSA contract apply; (5) Agreements with DOE management and operating contractors and University campuses; (6) Federal government and DOE mandatory sources of supply; Federal prison industries, industries of the blind and handicapped; and (7) Procurement card purchases.

Gradients:

In that this measure has zero weight, there is no gradient.

Performance Narrative:

LBNL socioeconomic goals are mandated or determined by the previous year's performance. While the Laboratory continued to meet the goals through the third quarter, the goals were not achieved in the final quarter. A trail-off in major procurements during FY 2001 versus FY 2000 resulting from a changing program mix was found to have severely impacted small business achievement. The Laboratory was not able to utilize HubZone businesses due to the type of services and supplies required. LBNL continued to aggressively pursue outreach activities. The Laboratory hosted 24 small businesses for an on-site information technology exposition and in September of 2001 hosted 16 small vendors for a laser program exposition.

Prior Year (2000) History:

Category	Goal	Results	Dollars
Small Business	38.0 percent	56.8 percent	$71.5M
Small Business Set-Asides	21.0 percent	25.3 percent	$31.8M
Small Disadvantaged Business	10.0 percent	14.4 percent	$18.1M
Women-Owned Small Business	5.0 percent	5.1 percent	$6.4M
HubZone SBC	0	Not measured	

Procurement Base: $125.9M

FY 2001

Category	Goal	Results	Dollars
Small Business	51.8 percent	46.6 percent	$60.4M
Small Business Set-Asides	21.0 percent	21.8 percent	$28.2M
Small Disadvantaged Business	12.0 percent	6.8 percent	$8.8M
Women-Owned Small Business	5.9 percent	5.1 percent	$6.6M
HubZone SBC	0	Nothing to report	
Veteran Owned Small Business		Nothing to report	

Actual Procurement Base: $129,655,264M
Proposed Procurement Base: $120M

Performance Rating (Adjectival)**:**

Performance Objective: # 2.0 Customer Satisfaction

The Laboratory shall periodically assess the degree of satisfaction with Procurement's ability to meet customer needs in terms of timeliness, quality, and communications. **(Weight = 10%)**

Criterion: # 2.1 Customer Feedback

As a continuous indicator of overall customer satisfaction, the Procurement function shall survey the needs and satisfaction of its Laboratory customers relative to its purchasing systems and methods. **(Weight = 10%)**

Performance Measure: # 2.1.a Customer Satisfaction Rating

A customer satisfaction rating for the Procurement function shall be created from the results of transactional surveys. The satisfaction rating is to be tracked and trended. The Parties will coordinate on the acceptability of the surveying process and contents. **(Weight = 10%)**

Assumptions:

Included in the evaluation will be a summary describing the activities that support the score achieved. Consideration will be given to activities/efforts taken to improve customer satisfaction.

The following formula shall be applied to measure customer satisfaction using transactional surveys:

$$\text{Customer Satisfaction Rating} = \frac{\text{Number of Satisfied Customers}}{\text{Total Number of Customers Surveyed}}$$

Gradients:

Unsatisfactory	< 60% of customers surveyed are satisfied.
Marginal	60% - 69.9% of customers surveyed are satisfied.
Good	70% - 79.9% of customers surveyed are satisfied.
Excellent	80% - 89.9% of customers surveyed are satisfied.
Outstanding	≥ 90% of customers surveyed are satisfied.

Performance Narrative:

LBNL achieved a 95.8 percent customer satisfaction rating, which meets the criteria for Outstanding. LBNL submitted the FY2001 Survey Plan (SP) on July 28, 2000, and DOE subsequently approved the submittal. The SP details LBNL's approach and methodology for conducting the survey process. The Lab continued with the use of telephone surveys, which include elements of timeliness, responsiveness, communication, and ethical practices contained within the Balanced Scorecard Model. Forty-eight (48) randomly selected transactions are surveyed, each with a total of 4 survey questions, and an overall satisfaction rating for the Procurement Division.

History

1999	83.7 percent	Climate Survey
2000	93.8 percent	Transactional Survey (number of satisfied customers 45 out of 48)
2001	95.8 percent	Transactional Survey (number of satisfied customers 46 out of 48)

Performance Rating (Adjectival)**: Outstanding**	92.00%

Performance Objective: #3.0 Learning and Growth

The Laboratory shall ensure that information and feedback mechanisms are available to procurement employees to enhance continued successful procurement operations. **(Weight = 15%)**

Criterion: #3.1 Employee Feedback

The Laboratory shall foster improvement of processes and performance by assessing and pursuing improvements in employee satisfaction. **(Weight = 5%)**

Performance Measure: #3.1.a Employee Satisfaction Rating

A Procurement employee satisfaction rating shall be created from the results of an employee survey. The satisfaction rating is to be tracked and trended. The Parties will coordinate on the acceptability of the surveying process and contents. **(Weight = 5%)**

Assumptions:

Included in the evaluation will be a summary describing the activities that support the employee satisfaction rating achieved. Consideration will be given to activities/efforts taken to improve employee satisfaction.

The following formula shall be applied to measure employee satisfaction:

$$\text{Employee Satisfaction Rating} = \frac{\text{Number of Satisfied Employees}}{\text{Total Number of Employees Surveyed}}$$

The Procurement organization will provide in its annual self-assessment report, for information purposes only, percent of employees aligned. Such input will not be part of the rating process and will be used for Balanced Scorecard reporting purposes.

Gradients:

Unsatisfactory	< 50% of employees surveyed are satisfied.
Marginal	50% - 59.9% of employees surveyed are satisfied.
Good	60% - 69.9% of employees surveyed are satisfied.
Excellent	70% - 79.9% of employees surveyed are satisfied.
Outstanding	≥ 80% of employees surveyed are satisfied.

Performance Narrative:

LBNL submitted the FY 2001 Plan on July 28, 2000. DOE subsequently approved the submittal. The SP details LBNL's approach and methodology for conducting the survey process. The employee survey asked employees to rate their agreement with 12 questions on a scale of 1 (strongly agree) to 5 (strongly disagree) as well as an overall satisfaction rating. Surveys were distributed to 30 employees, including contract labor hires, which was not a part of the approved survey plan. The survey results indicated 95.2 percent employee satisfaction, which is within the outstanding gradient. However, contract labor hires were made part of the results which is a significant departure from the approved plan and the Laboratory's Supplemental Labor Personnel Guide. Therefore, a rating of excellent is given for this measure because of the Laboratory's departure from the approved plan that commingled survey results from contract labor hires with those from laboratory employees.

Employee Alignment: 100 percent of Berkeley Lab Procurement employees are aligned.

History

1999	81.2 percent (23 questions)
2000	90.0 percent (number of satisfied employees 27 out of 30)
2002	95.2 percent (number of satisfied employees 20 out of 30)

Performance Rating (Adjectival)**: Excellent**	89.00%

Criterion: #3.2 Information Availability

The Laboratory shall make readily available to its employees current information important to the successful performance of their procurement related functions. **(Weight = 10%)**

Performance Measure: #3.2.a Measuring Availability of Information

The Laboratory will track and trend the level of information available to Procurement employees. **(Weight = 10%)**

Assumptions:

Information is considered available if it is current or requires only minor revision and the information is in compliance with Prime Contract requirements.

The following formula shall be applied to measure the level of information availability:

$$\text{Level of Information Availability} = \frac{\text{Number of Information Items Available}}{\text{Number of Information Items Needed}}$$

Gradients:

Unsatisfactory	< 85.0%
Marginal	85.0% - 87.9%
Good	88.0% - 90.9%
Excellent	91.0% - 93.9%
Outstanding	≥ 94.0%

Performance Narrative:

LBNL achieved a 91.8 percent rate for information availability, which meets the criteria for Excellent.

1999 The level of information required was baselined, of 100 information items required only 5 were unavailable.
2000 100 out of 101 items were required and available. Laboratory agreed to count each SP as a single information element for FY2001.
2001 A total of 225 items are availabe out of 245 required.

Performance Rating (Adjectival)**: Excellent**	85.00%

Performance Objective: #4.0 Managing Financial Aspects

The Laboratory shall ensure optimum cost efficiency of purchasing operations.

(Weight = 10%)

Criterion: #4.1 Process Cost

The Laboratory compares its operating costs as a percentage of total procurement dollars obligated to benchmarking data and industry standards and establishes goals and gradients accordingly.

(Weight = 10%)

Performance Measure: #4.1.a Cost to Spend Ratio

Operating costs as a percentage of total procurement dollars obligated will be computed. The Laboratory's operating costs (labor plus overhead) shall be divided by purchasing obligations.

(Weight = 10%)

Assumptions:

The following formula shall be applied to measure the cost to spend ratio:

$$\text{Cost to Spend Ratio} = \frac{\text{Purchasing Organization Cost}}{\text{Total Purchasing Obligations}}$$

Gradients:

Unsatisfactory	> 2.50%
Marginal	2.21% – 2.50%
Good	1.96% – 2.20%
Excellent	1.70% – 1.95%
Outstanding	< 1.70%

Performance Narrative:

LBNL achieved 1.26 percent, which meets the criteria for Outstanding. The Laboratory continues to do extremely well in this area when compared to the CAPS DOE contractor benchmark of 2.3.

1999 .99 percent "Best in Class"
2000 1.13 percent "Rank one of the lowest in the DOE Complex"
2001 1.26 percent "Rank one of the lowest in the DOE Complex"

	Procurement Operating Expenses	Procurement Commitments
1999	$1,484,555	$168,544,163
2000	$1,711,936	$154,294,534
2001	$2,422,354	$191,618,889

Performance Rating (Adjectival)**: Outstanding**	95.00%

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Performance Area: PROPERTY

Property Management will employ the Property Performance Assessment Model (PPAM) for Fiscal Year 2001. The Property Management organization will finalize its final assessment plan with DOE and UC by October 1, 2000. This plan will cover performance thresholds, performance ranges (gradients), specific scoring criteria, and frequency of reporting.

In this Model, points are used to determine the score for each activity. Weights and the corresponding points are shown below at the Objective, Criteria, and Performance Measure levels. At the Basis for Rating level, the total possible points for each activity are shown. Overall ratings will be based on the following (where a total weight of 100% is equal to 500 points):

< 352 Unsatisfactory
>= 352 Marginal
>= 400 Good
>= 450 Excellent
>= 475 Outstanding

The Adjectival Rating and Contractual Score will be assigned using the following scoring table:

Property Management
Scoring Table

PPAM Points Earned	Translation to Appendix F Contractual Scoring	Adjectival Rating
304-319	52	**Unsatisfactory**
320-335	55	
336-351	58	
352-367	62	**Marginal**
368-383	65	
384-399	68	
400-416	72	**Good**
417-432	75	
433-449	78	
450-459	82	**Excellent**
460-468	85	
469-474	88	
475-483	92	**Outstanding**
484-492	95	
493-500	98	

Performance Objective: #1.0 Accountability for Equipment, Sensitive Property, and Precious Metals

The Laboratory shall ensure accountability for equipment and sensitive personal property and precious metals. **(Weight = 50% / Total Points = 250)**

Criterion: #1.1 Accountability for Equipment, Sensitive Property, and Precious Metals

The Laboratory shall conduct successful personal property and precious metal inventories as established in its inventory planning. **(Weight = 35% / Total Points = 175)**

Performance Measure: #1.1.a Property and Precious Metals Accounted For

The percentage of personal property and precious metals accounted for, as described in the approved inventory plans, will be measured. **(Weight = 35% / Total Points = 175)**

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

During FY 2001, the LBNL conducted a statistical sample inventory of sensitive and equipment items which resulted in a 99.4 percent find rate by acquisition value for equipment, and 98.87 percent for sensitive property. From an equipment sample population consisting of 1,591 items (valued at $69,366,569), 1,558 items (valued at $68,962,251) (99.4 percent) were located. From a sample sensitive property population consisting of 1,719 items (valued at $8,020,338), 1,700 items (valued at $7,929,540) were located (98.87 percent).

A subsequent sample inventory validation was conducted. Of the 49 equipment items validated, 48 (97 percent) were located. Of the 52 sensitive items validated 51 (98 percent) were located. The Organizational Property Management Officer (OPMO) participated during the follow-up inventory validation.

During FY 2001, LBNL's Life Sciences Division fell significantly short of the 98.7 percent minimally acceptable level during the inventory, and were consequently directed to conduct a follow-on wall-to-wall inventory during which 95.6 percent of sensitive items were located and 98.4 percent of

equipment items were located. The poor Life Sciences Division inventory results were instrumental in the sharp decline in LBNL's overall sensitive inventory performance from 99.8 percent in FY 2000 to 98.87 percent in FY 2001.

LBNL accounted for 99.8 percent of their precious metals inventory. There were two unexplained losses totaling 50 grams. LBNL Security was notified of the loss.

A rating of **Good** is assigned for this Performance Measure.

Performance Rating (Adjectival)**: Good**	152	75.00%

Criterion: #1.2 Identification of Items Subject to Inventory

The Laboratory will ensure personal property items that are subject to inventory are accurately identified. **(Weight = 15% / Total Points = 75)**

Performance Measure: #1.2.a Accuracy of Identification

The percentage of items accurately identified in the property database will be measured. **(Weight = 15% / Total Points = 75)**

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

There are three separate elements that contribute to performance in this measure: percentage of new assets tagged in receiving, percentage of new assets tagged in the field within 15 days, and percentage of assets correctly recorded in the database.

During FY 2001, the LBNL receiving function tagged 98.1percent of the total 2,292 items received during the year. This is important as the initial identification and tagging of the equipment is the critical first step in achieving control and accountability for the property. For the assets requiring tagging in the field, LBNL was able to tag 94.8 percent within 15 days following notification. Strong fourth quarter performance (100 percent) contributed to the notable final score. A critical element in ensuring database integrity and accuracy is the floor-to-record sample validation of custodial assignment accuracy. During FY 2001, LBNL sampled 312 and found 100 percent of those items correctly recorded in the database.

Based on these results a score of **Excellent** is assigned.

Performance Rating (Adjectival)**: Excellent**	70	85.00%

Performance Objective: #2.0 Stewardship Over Personal Property

The Laboratory shall ensure that both stewardship and custodianship for personal property is maintained. **(Weight = 20% / Total Points = 100)**

Criterion: #2.1 Organizational Stewardship and Individual Accountability

The Laboratory will ensure organizational and individual accountability (stewardship and custodianship, respectively) for property. **(Weight = 20% / Total Points = 100)**

Performance Measure: #2.1.a Timeliness of Assignment

The accountable individual is identified for equipment and sensitive property, and the timeliness of such identification is measured. **(Weight = 20% / Total Points = 100)**

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

Two of the more critical elements in achieving personal accountability for personal property is the accurate and timely assignment of personal property to custodians. This is verified annually by conducting a random sample of custodial assignments. During FY 2001, LBNL sampled 312 items for custodian assignment accuracy. Of those, 287 (92.0 percent) were accurately assigned.

In addition, LBNL was able to assign 100 percent of new assets to a custodian within 60 days of receipt.

Overall, this performance equates to a rating of **Excellent**.

Performance Rating (Adjectival)**:**	**Excellent**	90	88.00%

Performance Objective: #3.0 Vehicle Utilization

The Laboratory shall have a program to manage its vehicle fleet. **(Weight = 5% / Total Points = 25)**

Criterion: #3.1 Fleet Management

The Laboratory shall manage its fleet to ensure appropriate vehicle utilization.
(Weight = 5% / Total Points = 25)

Performance Measure: #3.1.a Vehicle Utilization

The Laboratory shall measure the percentage of total eligible vehicles meeting local utilization criteria.
(Weight = 5% / Total Points = 25)

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

In FY 2001, the LBNL motor vehicle utilization criteria was raised from 200 miles per month to 225 miles per month, but LBNL still scored in the "**Outstanding**" range during FY 2001, with the discretionary and essential vehicle classes achieving 121.3 percent and 130.6 percent utilization respectively. It is notable that LBNL raised the utilization criteria, in an attempt to establish a more realistic criteria that best characterizes actual vehicle usage.

This measure is rated as "**Outstanding**."

Performance Rating (Adjectival)**: Outstanding**	25	100.00%	

Performance Objective: #4.0 Information to Improve/Maintain Processes (Systems Evaluation)

The Laboratory ensures that Property Management programs are consistent with policies and procedures approved by DOE. **(Weight = 10% / Total Points = 50)**

Criterion: #4.1 Self-Assessment of Policies and Procedures

The Laboratory shall plan, conduct, document, and report annually, the results of a successful property management system evaluation. **(Weight = 10% / Total Points = 50)**

Performance Measure: #4.1.a Assessing Support Processes

The property processes shall be measured against identified system evaluation criteria established in the plan. **(Weight = 10% / Total Points = 50)**

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

During FY 2001, LBNL conducted a self-assessment of support processes in the areas of: property loans/borrows, subcontracts, walkthroughs, inventory of controlled substances, high-risk reviews, and processing excess personal property. In each area, LBNL assesses performance by answering a series of questions with points assigned to each question. Based on the result of this year's assessment, LBNL earned a score of 50 out of a possible 50 points. This equates to a score of **Outstanding.**

Performance Rating (Adjectival)**:**	**Outstanding**	50	98.00%

Performance Objective: #5.0 Customer Alignment

The Laboratory shall ensure that there is a property management program for identifying and evaluating customer needs and for building and maintaining positive customer relations.

(Weight = 5% / Total Points = 25)

Criterion: #5.1 Monitoring Customer Alignment

The Property Management organization shall ensure that the property management programs are responsive to customer expectations. **(Weight = 5% / Total Points = 25)**

Performance Measure: #5.1.a Aligning Customer Expectations

The Laboratory will have processes in place to monitor customer expectations of property management tools and products with regard to ease of use, timeliness, accuracy, and certainty.

(Weight = 5% / Total Points = 25)

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

During FY 2001, LBNL utilized a unique approach to obtaining customer feedback. The LBNL Property Management Advisory Board (PMAB), a board made up of representatives from various Laboratory organizations, was tasked with preparing an independent survey to be distributed to LBNL Property Representatives. The survey was designed to address the level of satisfaction in the elements of timeliness, and quality associated with property management products.

The Advisory Board was also asked to analyze Property Representative meeting notes, and to assess the actions taken by Property Management to address action items coming from those meetings. Again, a rating scale of points was implemented.

It is recommended that LBNL better define the scoring methodology for this process for the FY 2002 period. Improved assessment of actual customer satisfaction levels would be of benefit.

Based on the scoring methodology, 46 points out of the possible 50 was given for a rating of **Outstanding** for this measure.

Performance Rating (Adjectival)**:**	**Outstanding**	23	92.00%

Performance Objective: #6.0 Balancing Performance and Cost

The Laboratory ensures that property is managed appropriately to balance performance and cost.
(Weight = 5% / Total Points = 25)

Criterion: #6.1 Balancing Performance/Cost Ratios

The Laboratory shall ensure that property processes/products are provided in the most cost efficient manner while maintaining desired levels of performance.
(Weight = 5% / Total Points = 25)

Performance Measure: #6.1.a Measuring Cost Efficiency/ Effectiveness

The Laboratory shall measure its ability to effectively balance property management costs and performance. **(Weight = 5% / Total Points = 25)**

Assumptions:

Where properly justified and approved by DOE, the Laboratory may elect to establish a measure that extends over two evaluation periods. The first year the Laboratory will submit a plan outlining the approach to be employed in establishing an appropriate baseline and developing the gradients for the following evaluation period. Approach and deployment of the plan will be evaluated the first year. The final milestone of the plan will be to develop gradients for results desired by the end of the second year. These gradients will be the basis for evaluation in the second evaluation period.

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

In FY 2001, LBNL chose to address their loan and borrow process for concentrating significant efforts on reducing associated costs. In addition, several other subfunctions within the property management operation were assessed with the focus on increasing efficiency in those areas, as opposed to pure cost savings.

Property Management sought to reengineer the loan/borrow process by assessing the initial phase of the process which is a Web-based process whereby loan/borrow requestors fill out an on-line request

form and submit it electronically to the property management staff for consideration. However, apparently due to a programming error, it was found that the computer application was automatically filling in the name block for the requestor with the name of the submitter for the request. In some cases this information was found to be erroneous, so additional re-work of the initial request was required. It was determined that about 6.5 days annually was being spent on resolving these types of issues. This programming error was corrected, as a result an annual time/cost savings of approximately 6.5 days will be realized.

In addition, LBNL chose to assess their processes for precious metals inventory, loan/borrow renewals, and the controlled substance processing. In the area of precious metals management, LBNL has begun conducting their future requirement forecasting while they are doing their inventory, as opposed to conducting a separate survey. For loan and borrow renewals, LBNL designed a template document for requestors to use for filling out the required information to process a renewal. This has received positive feedback from customers. Working with Environmental, Safety and Health (ES&H), a new subcontract was put in place to effectively dispose of controlled substances.

LBNL should be commended for addressing several areas of their property management program in an effort to increase efficiency.

A rating of **Outstanding** is assigned for this measure.

Performance Rating (Adjectival)**: Outstanding**	25	98.00%

Performance Objective: #7.0 Organizational Vitality

The Laboratory shall ensure that there is a program for achieving and maintaining organizational vitality in the property management organization. **(Weight = 5% / Total Points = 25)**

Criterion: #7.1 Evaluation of Organizational Agility and Employee Alignment

The Laboratory will foster organizational agility and employee alignment in its property management organization. **(Weight = 5% / Total Points = 25)**

Performance Measure: #7.1.a Measuring Organizational Agility and Employee Alignment

The Laboratory will have a process in place to measure organizational vitality as well as to understand and address workforce expectations. **(Weight = 5% / Total Points = 25)**

Assumptions:

Organizational vitality is the alignment of organizational performance goals and workforce skills (both current and future). The Laboratory will develop scoresheets to evaluate elements determined necessary to ensure its workforce is ready for current and future operations and projected challenges. Elements to be evaluated and scored will be submitted to and approved by DOE as part of the annual Personal Property Assessment Model (PPAM) finalization process.

Basis for Rating

Exhibit I provides the activities to be measured, point value for each activity, and performance ranges (gradients).

Performance Narrative:

Of particular note during FY 2001, LBNL hosted National Property Management Association (NPMA) certification training for their property management employees and their Divisional Property Coordinators. This is highly commendable in that NPMA certification training is recognized as the industry standard for property managers, both Federal and public sector. In addition, LBNL ensured that Individual Development Plans were in place for all employees, and procedures are in place to monitor employee performance evaluations, safety, and quality of work.

A rating of **Outstanding** is assigned to this measure.

Performance Rating (Adjectival)**: Outstanding**	25	98.00%	

EXHIBIT I

LBNL PROPERTY SUB-GAUGES – FY 2001

Measured Activities/Sub-Gauges Activity/Support Process		Gradient 60/70/80/90/100	Value of Activity
Product Goodness			
1.1.a	Property and Precious Metals Accounted For		
1.1.a.1	The Laboratory will inventory sensitive assets.	<98.0/98.0/98.7/99.2/99.5	80
1.1.a.2	The Laboratory will inventory equipment assets.	<98.0/98.0/98.7/99.2/99.5	70
1.1.a.3	The Laboratory will account for precious metals.	<98.0/98.0/99.0/99.6/99.8	25
1.2.a	Accuracy of Identification		
1.2.a.1	Receiving will tag new assets when received.	<85.0/85.0/90.0/95.5/98.0	25
1.2.a.2	Property will tag assets requiring field tagging within 15 days.	<85.0/85.0/90.0/95.5/98.0	25
1.2.a.3	Property will verify if in-service assets are recorded in database.	<85.0/85.0/90.0/95.5/98.0	25
2.1.a	Timeliness of Assignment		
2.1.a.1	Property will verify if assets are accurately assigned to custodians by Divisions.	<85.0/85.0/90.0/95.5/98.0	50
2.1.a.2	Property will verify if new assets are assigned to a custodian within 60 days.	<85.0/85.0/90.0/95.5/98.0	50
3.1.a	Vehicle Utilization		
3.1.a.1	Do discretionary vehicles meet utilization criteria?	<85.0/85.0/90.0/95.5/98.0	13
3.1.a.2	Do essential vehicles meet utilization criteria?	<85.0/85.0/90.0/95.5/98.0	12
Process Goodness			
4.1.a	Assessing Support Processes		
4.1.a.1	Property will assure that property Policies and Procedures are properly implemented.	Scoresheet *	50
5.1.a	Aligning Customer Expectations		
5.1.a.1	Property will assure customers are satisfied with property management services.	Per Protocol *	25
6.1.a	Measuring Cost Efficiency/Effectiveness		
6.1.a.1	Property will reengineer the processing of Loans and Borrows and determine if any benefits resulted from reengineering tasks.	Per Protocol *	25

Measured Activities/Sub-Gauges Activity/Support Process		Gradient 60/70/80/90/100	Value of Activity
Workplace Goodness			
7.1.a	Measuring Organizational Agility and Employee Alignment		
7.1.a.1	Property Management will establish a training and development environment for property staff and property representatives.	Per Protocol *	25

* This measure is point scored rather than being adjectivally rated. Points earned at the performance measure level contribute to the overall point total for Property Management. The overall point total is used to arrive at a final numerical score and adjectival rating based on the Property Management Scoring Table included in Appendix F of the Prime Contract.

Performance Narrative:

Performance Rating (Adjectival): **Excellent**	460	85.00%

Appendices

Report Methodology

APPENDIX F - OBJECTIVE STANDARDS OF PERFORMANCE

This report provides the Contracting Officer's Fiscal Year 2001 written assessment and evaluation of the Contractor's self-assessment of performance in its management and operation of LBNL for DOE under Contract Clause 2.6, Performance Based Management. The Contractor and DOE have agreed to use a performance-based management system for oversight at the Laboratory. Annual Standards of Performance under contract, Appendix F are used for the appraisal and evaluation of work under contract and is supported by a system that includes: (1) the utilization of self-assessment and integrated oversight methodologies, systems, and processes to enhance operational efficiency and performance effectiveness; (2) the use of peer review and self-assessment in the appraisal and evaluation of science and technology/programmatic performance; and, (3) such other administrative processes and procedures as the Parties may mutually agree to, from time to time, as they deem necessary to effect the intent of Contract Clause 2.6 and Appendix F. Self-assessments are the principal means by which the Contractor evaluates compliance with the performance objectives described in Appendix F. DOE OAK validates against the self-assessment and evaluates the Contractor's performance. The validation effort is conducted by teams responsible for the various functional areas represented in Appendix F. These teams, with guidance from DOE OAK management, are responsible for developing an adequate, independent basis for assessing the quality, credibility, and accuracy of the Contractor's self-assessment; and a basis for DOE OAK's written assessment and evaluation of the Contractor's performance.

This report meets the following contract requirements:

- Provide a summary of the results from the conduct of the DOE OAK validation program and evaluation of performance of work under contract as required by Clause 2.6.

- Provide a written assessment of the Contractor's performance under the contract based upon the DOE OAK appraisal program and the Contracting Officer's evaluation of the Contractor's self-assessment as required by Clause 2.6(e).

- Provide the basis for determination of the Senior Management Salary Increase Authorization (SIA) Multiplier as required by Section III, paragraph (f), (6) and (8) of Appendix A and Section C, Part III of Appendix F.

- Provide the basis for determination of the Contractor's Program Performance Fee, as required by Clause 5.3.

1. Appendix F Components of Laboratory Evaluation Process

The first component of the performance evaluation process is the evaluation of Science and Technology/Programmatic performance. The University of California President's Council on the National Laboratories performs a peer review and evaluates the quality of science and technology at the Laboratory. The Council prepares a report that the University's Laboratory Affairs Office uses to develop an adjectival and numeric rating for the evaluation of Science and Technology at the Laboratory. DOE Headquarters (DOE HQ) program managers and their DOE OAK counterparts validate the Science and Technology self-assessment.

The second component of the performance evaluation process is the annual Contractor self-assessment of the operations and administrative systems at LBNL included in Section B of Appendix F. The results of this self-assessment and proposed corrective action plans are then presented to the University of California, Laboratory Administration Office (UCLAO) by the Laboratory. This becomes the foundation for the Contractors self-assessment.

UCLAO management also evaluates the administrative systems for the Laboratory using the self-assessments and corrective action plans provided by the Laboratory and the established Appendix F performance measures. UCLAO establishes an aggregate "rating" for the Laboratory based on the evaluation of each functional area and combines this result with the ratings for Science and Technology for a total adjectival and numeric rating.

DOE OAK reviews and validates Contractor performance against the established Appendix F performance objectives, the UCLAO rating of the Laboratory self-assessment, and corrective action plans. This effort is accomplished by teams reflecting expertise in the various functional disciplines required by the Appendix F administrative and operational systems. All teams have the opportunity to observe the Laboratory's independent evaluation of its self-assessment. This report is the product of their review and validation of the Contractor's performance. The primary objective of this report is to provide the annual Contracting Officer's written assessment of the Contractor's performance under the contract. This report also documents the DOE determination of the Senior Management Salary Increase Authorization (SIA) Multiplier and the amount of earned Program Performance Fee in accordance with Contract terms.

2. Self-Assessment Period

Designed to capture performance for Fiscal Year 2001, the self-assessment period for the Laboratory is October 1, 2000 through September 30, 2001, unless specified in the Performance Objective. Significant performance between the later date and the end of the Fiscal Year is to be assessed by the Laboratory and provided as a supplement to the self-assessment. The Laboratory provided its self-assessment to UC on October 1, 2001. The Contractor provided the self-assessment of LBNL and proposed rating to DOE OAK on November 1, 2001.

The Contractor and DOE agreed to use the following table for adjectival graded and numeric scoring:

DOE-UC Rating Adjectives

Percentage Range	Adjectival Description	Definition
100-90 %	Outstanding	Significantly exceeds the standard of performance; achieves noteworthy results; accomplishes very difficult tasks in a timely manner
89-80 %	Excellent	Exceeds the standard of performance; although there may be room for improvement in some elements, better performance in all other elements offset this
79 - 70 %	Good	Meets the standard of performance; assigned tasks are carried out in an acceptable manner - timely, efficiently, and economically. Deficiencies do not substantively affect performance.
69- 60 %	Marginal	Below the standard of performance; deficiencies are such that management attention and corrective action are required.
< 60 %	Unsatisfactory	Significantly below the standard of performance; deficiencies are serious, and may affect overall results, immediate senior management attention, and prompt corrective action is required.

3. **Methodology for Validation of Numerical Scoring for Contractor Self-Assessment - Science & Technology (S&T) FY 2001**

a. **Introduction**

The programmatic assessment of the Contractor is based upon the use of peer review and self-assessment in the appraisal and evaluation of S&T/Programmatic Performance; and validated by DOE HQ and BSO program managers. Using the programmatic assessment, the ratings for the science and technology are decided using the rating table below. To convert the adjectival rating to an equivalent numerical (percentage) score, the methodology outlined below is utilized.

b. **Methodology**

For each programmatic assessment and defined by the Parties appraisal area for FY 2000, a specific number is applied, as follows:

Scoring Crosswalk Table

Adjectival Rating	Range	Score
Outstanding	100-90 %	95
Excellent	80-89 %	85
Good	70-79 %	75
Marginal	60-69 %	65
Unsatisfactory	59 ↓ %	55

Example

Science and Technology	Adjectival Rating	Numeric Score	Weight	Weighted Score
Biology and Biotechnology	**Outstanding**	**91.67**	**0.03**	**2.75**
Criteria 1	Excellent	85		
Criteria 2	Outstanding	95		
Criteria 3	N/A			
Criteria 4	Outstanding	95		

(85 + 95 + 95 = 275/3=91.67=Outstanding)

The scoring range table is used because averaging yields results other than 95, 85, 75, 65, 55.

The overall score for the Science and Technology/Programmatic performance assessment is calculated by totaling the scores from each Research and Development (R&D) Division. All Divisions are weighted in proportion to their relative funding in the calculation of the overall Science and Technology score. Similarly, DOE S&T program evaluations are funding weighted in the overall S&T evaluation. DOE weights all applicable criteria equally within each LBNL program.

The weighted scores in the programmatic appraisal areas are totaled and the resulting percentage is assigned an adjectival rating based on the scoring range in the Scoring Crosswalk Table. Thus, for FY 2001, S&T's weighted score is 93.3 percent, which equates to an outstanding adjectival rating. 93.3 percent of 500 equals 467 points for FY 2001 when rounded. (See Appendix B-FY 2001 Science & Technology Scores.)

4. **Appendix F Appraisal Component Methodology**

The DOE OAK Functional Teams validate the Contractor's self-assessment on quality, accuracy, and credibility, and consider other sources of information, reviews, or tests. From this process the teams recommend a numeric and adjectival rating of the Contractor's performance. For Science & Technology the methodology is the same with a heavy reliance on assessment from DOE HQ program offices.

(i) Lab Management, Operations and Administration Functional Areas

The Parties agree that the operational area of "Environment, Safety and Health," is weighted at approximately 60 points over the other functional areas. All other operations and administration functional areas are equal at 50 points except for Environment Restoration and Waste Management, which is weighted at 40 points.

(ii) Performance Objectives

The Parties establish the weights to be assigned at the performance objective and criteria level within the functional teams.

(iii) Performance Objectives Not Accomplishable During the Rating Period

The methodology used by DOE OAK is to assess these performance objectives where there is enough information available to render an assessment of Contractor performance. In cases where a performance assessment can not be made, it is decided to not rate the performance objective. In such cases the performance objective's weight is maintained, if feasible, by reassigning the performance criteria weights within that performance objective. If that is not possible the weight of the objective is added proportionately to other performance objectives in the functional area.

(iv) Sources of Information

The initial source of information about performance was obtained from

the Contractor self-assessment and evaluation. Sources of information used by DOE to validate the credibility and conclusions of the self-assessment and the review of the self-assessment included, but were not limited to:

- Functional appraisals conducted by line and functional managers with input from Headquarters, as appropriate.
- Assessment Management Plans for Operational oversight of the Contractor that include in their scope Appendix F performance objectives.
- Daily operational awareness activities, including interactions, walk-throughs, management meetings or other modes of formal and informal contact with the Contractor.
- External and internal audits and evaluations, such as GAO/OIG reviews, ES&H assessments, Inspections and Evaluations, etc.
- Review and validation efforts of Appendix F measures during the two-week performance assessment review of the Contractor.

(v) **Factual Accuracy Check**

A draft of the performance narrative of this report was provided to UC on December 17, 2001, to check the factual accuracy of its contents. The University returned its comments by January 11, 2002.

PERFORMANCE APPRAISAL - APPENDIX C - OPERATIONS AND ADMINISTRATION SCORING

Column 1: **POINTS -** represents the total points allocated for the entire functional area. For example, the functional area of Laboratory Management is allocated 50 points of the 500 point total for all of the administration/operations section. This is the first tier for the weightings of each functional area; all other weightings within a functional area are sub-ordinate to this overall weight [or points available.]

All functional areas are not equal to each other; they are weighted using a hierarchical method. For example, in FY 2001, the functional area of Environmental Restoration and Waste Management is allocated a total of 40 points; all other areas are allocated 50 points, with the exception of Environment, Safety and Health, which is allocated 110 points.

While column 1 (points) represents the total points available for that functional area, the total points available are further broken down [or allocated] by performance objective(s), and within each objective, by criteria and the actual performance measure(s).

Column 2: **SCORE** - represents the total points received, through the DOE evaluation process, for each functional area for the fiscal year. For example, if a functional area has 30 points available, the DOE evaluation would result in a numeric score of 30 or less. Thus, it represents the final scoring for the functional area. The summation of column 2 results in the overall score for Administration/Operations functional areas.

Column 3: **PERCENT** - represents the numeric score, expressed as a percentage of total points available. In the above example of a functional area with 30 points, if the functional area received 26 points, this would equate to 87 percent.

Unique Methodology for Property Management Scores

DOE OAK has used specific, unique methodology only applicable to the property management performance area in calculating the overall score, percent and adjectival rating for the FY 2001 performance. The Parties agree upon the use of a rating table designed to identify a range of **(PPAM)** points earned and the translation of such points to a numeric scoring for the purposes of the Appendix F performance rating for FY 2001. (See Property Scoring Table).

FY 2001 Appendix F
Property Scoring Table

PPAM Points Earned	Translation to Appendix F Contractual Scoring	Adjectival Rating
493-500	98	Outstanding
484-492	95	
475-483	92	
469-474	88	Excellent
460-468	85	
450-459	82	
433-449	78	Good
417-432	75	
400-416	72	
384-399	68	Marginal
368-383	65	
352-367	62	
336-351	58	Unsatisfactory
320-335	55	
304-319	52	

Using the PPAM model, Property Management could earn from 0 up to 500 points in their performance. If the Contractor earns 480 points (performance in the range of 475 - 483) falls into the category of 92 percent for an outstanding adjectival rating. (Even though mathematically, the total scores for each element adds up to 43.1 out of a possible 45 points, or 95.9%).

Senior Management Salary Increase Authorizations (SIA) Multiplier - The total points earned in the performance of Science and Technology and Operations and Administration are used to determine the SIA. Using the table (Section C, Part III of Appendix F). The total points earned correspond to the agreed numeric equivalent. The numeric equivalent is used as a multiplier of each Senior Management merit pool.

Appendix B - Science and Technology Scores
Lawrence Berkeley National Laboratory

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING ($M)	WEIGHT	WEIGHTED SCORE
BASIC ENERGY SCIENCES		**OUTSTANDING**	**95.0**	**77.9**	**0.25**	**23.55**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
HIGH ENERGY PHYSICS		**EXCELLENT***	**88.5**	**40.4**	**0.13**	**11.38**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Excellent				
NUCLEAR PHYSICS		**OUTSTANDING**	**92.5**	**18.7**	**0.06**	**5.51**
Criteria 1	Quality of Science	Excellent				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				

Appendix B - Science and Technology Scores
Lawrence Berkeley National Laboratory

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING ($M)	WEIGHT	WEIGHTED SCORE
COMPUTING SCIENCES		**OUTSTANDING**	**95.0**	**65.9**	**0.21**	**19.93**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
FUSION ENERGY SCIENCES		**OUTSTANDING**	**95.0**	**5.6**	**0.02**	**1.69**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
BIOLOGICAL AND ENVIRONMENTAL RESEARCH		**OUTSTANDING**	**95.0**	**62.4**	**0.20**	**18.87**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	N/A				
Criteria 4	Programmatic Performance and Planning	Outstanding				

Appendix B - Science and Technology Scores
Lawrence Berkeley National Laboratory

SCIENCE AND TECHNOLOGY		ADJECTIVAL RATING	NUMERIC SCORE	FUNDING ($M)	WEIGHT	WEIGHTED SCORE
ENERGY EFFICIENCY & RENEWABLE ENERGY		**EXCELLENT**	**88.3**	**24.9**	**0.08**	**7.00**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Excellent				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	N/A				
Criteria 4	Programmatic Performance and Planning	Excellent				
CIVILIAN RADIOACTIVE WASTE MANAGEMENT		**OUTSTANDING**	**95.0**	**11.5**	**0.04**	**3.48**
Criteria 1	Quality of Science	Outstanding				
Criteria 2	Relevance to National Needs and Agency Missions	Outstanding				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	Outstanding				
Criteria 4	Programmatic Performance and Planning	Outstanding				
FOSSIL ENERGY		**EXCELLENT**	**85.0**	**6.9**	**0.02**	**1.87**
Criteria 1	Quality of Science	Excellent				
Criteria 2	Relevance to National Needs and Agency Missions	Excellent				
Criteria 3	Performance in the Technical Development and Operation of Major Research Facilities	N/A				
Criteria 4	Programmatic Performance and Planning	Excellent				

Appendix B - Science and Technology Scores
Lawrence Berkeley National Laboratory

SCIENCE AND TECHNOLOGY	ADJECTIVAL RATING	NUMERIC SCORE	FUNDING ($M)	WEIGHT	WEIGHTED SCORE
ADJECTIVAL RATING (OVERALL S&T)					**OUTSTANDING**
PERCENTAGE SCORE					**93.3%**
APPENDIX F POINT SCORE					**466**

* Overall HEP rating and score reflects aggregation of individual criteria scores each at the low-end of their respective ranges.

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE			POINTS	SCORE	PERCENT
LABORATORY MANAGEMENT			**50.0**	**47.1**	**94.1%**
PERFORMANCE OBJECTIVE #1	**Laboratory Leadership**	**(Weight =100%)**	**50.0**	**47.1**	**94.1%**
1.1	**Institutional Stewardship and Viability**	**(Weight = 100%)**	**50.0**	**47.1**	**94.1%**
1.1.a	Planning		7.1	6.8	95.0%
1.1.b	Establishing and Communicating Performance Expectations		7.1	6.8	95.0%
1.1.c	Stewardship of Assets		7.1	6.8	95.0%
1.1.d	Effective Resource Management		7.1	6.8	95.0%
1.1.e	Diversity Leadership and Awareness Eval.		7.1	6.6	92.0%
1.1.f	Community Relations		7.1	6.6	92.0%
1.1.g	Accountability and Commitments		7.1	6.8	95.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE	WEIGHT	SCORE	PERCENT
ENVIRONMENT RESTORATION AND WASTE MANAGEMENT	**40.0**	**38.9**	**97.3%**
PERFORMANCE OBJECTIVE #1 Environmental Restoration and Waste Management (Weight = 100%)	**40.0**	**38.9**	**97.3%**
1.1 Waste Management (Weight = 25%)	**10.0**	**10.0**	**100.0%**
1.1.a Waste Management, Productivity	4.0	4.0	100.0%
1.1.b Waste Management, Plan 2006/ACPC Commitments	6.0	6.0	100.0%
1.2 EM Program Innovation (Weight = 25%)	**10.0**	**9.5**	**95.0%**
1.2.a Advancement of the EM Program	10.0	9.5	95.0%
1.3 Environmental Restoration, Schedule Variance (Weight = 25%)	**10.0**	**9.6**	**96.0%**
1.3.a Environmental Restoration	10.0	9.6	96.0%
1.4 Cost Variances (Weight = 25%)	**10.0**	**9.8**	**97.5%**
1.4.a EM Projects	5.0	4.9	97.0%
1.4.b EM Level of Effort Programs	5.0	4.9	98.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE	WEIGHT	SCORE	PERCENT
ENVIRONMENT, SAFETY & HEALTH	**110.0**	**101.8**	**92.6%**
PERFORMANCE OBJECTIVE #1 Do Work Safely (Weight = 40%)	**110.0**	**101.8**	**92.6%**
1.1 ISM Core Functions and Principles Process Measure (Weight = 40%)	**44.0**	**40.9**	**93.0%**
1.1a Implementation of ISM	44.0	40.9	93.0%
1.2 ISM System Outcome Measures (Weight = 60%)	**66.0**	**60.9**	**92.3%**
1.2a Routine Exposures from Routine Activities	5.5	5.2	95.0%
1.2b Radiation Protection of the Public and the Environment	5.5	4.8	88.0%
1.2c Prevention of Unplanned Radiation Exposures	5.5	5.2	94.0%
1.2d Control of Radioactive Material	5.5	5.0	91.0%
1.2e Exposure to Chemical, Physical, and Biological Agents	7.7	7.3	95.0%
1.2f Accident Prevention	7.7	6.9	89.0%
1.2g Occupational Safety and Health	7.7	6.7	87.0%
1.2h Tracking Environmental Incidents	9.9	9.7	98.0%
1.2i Waste Reduction and Recycling	11.0	10.1	92.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE			WEIGHT	SCORE	PERCENT
FACILITIES MANAGEMENT			**50.0**	**45.8**	**91.7%**
PERFORMANCE OBJECTIVE #1	**Real Property Management**	**(Weight = 5%)**	**2.5**	**2.5**	**98.0%**
1.1	**Real Property Management**	**(Weight = 5%)**	**2.5**	**2.5**	**98.0%**
1.1.a	Program Implementation		2.5	2.5	98.0%
PERFORMANCE OBJECTIVE #2	**Physical Assets Planning**	**(Weight = 14%)**	**7.0**	**6.3**	**90.0%**
2.1	**Comprehensive Integrated Planning Process**	**(Weight = 14%)**	**7.0**	**6.3**	**90.0%**
2.1.a	Effectiveness of Planning Process		7.0	6.3	90.0%
PERFORMANCE OBJECTIVE #3	**Project Management**	**(Weight = 33%)**	**16.5**	**14.3**	**86.5%**
3.1	**Construction Project Performance**	**(Weight =20%)**	**10.0**	**9.4**	**94.0%**
3.1.a	Work Performed		10.0	9.4	94.0%
3.2	**Construction Project Cost**	**(Weight = 13%)**	**6.5**	**4.9**	**75.0%**
3.2.a	Total Estimated Cost (TEC)		6.5	4.9	75.0%
PERFORMANCE OBJECTIVE #4	**Maintenance**	**(Weight = 33%)**	**16.5**	**15.7**	**95.0%**
4.1	**Facility Management**	**(Weight = 13%)**	**6.5**	**6.2**	**95.0%**
4.1.a	Program Implementation		6.5	6.2	95.0%

Appendix C - Operations and Administration System Scores

4.2	**Maintenance Program**	**(Weight = 20%)**	**10.0**	**9.5**	**95.0%**
4.2.a	Maintenance Index		10.0	9.5	95.0%
PERFORMANCE OBJECTIVE #5	**Utilities/Energy Conservation**	**(Weight = 15%)**	**7.5**	**7.1**	**95.0%**
5.1	**Reliable Utility Service**	**(Weight = 8%)**	**4.0**	**3.8**	**95.0%**
5.1.a	Electric Service		4.0	3.8	95.0%
5.2	**Energy Consumption**	**(Weight = 2%)**	**1.0**	**1.0**	**95.0%**
5.2.a	Building Energy		1.0	1.0	95.0%
5.3	**Energy Management**	**(Weight = 5%)**	**2.5**	**2.4**	**95.0%**
5.3.a	Energy Goals		2.5	2.4	95.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE			WEIGHT	SCORE	PERCENT
FINANCIAL MANAGEMENT			**50.0**	**45.1**	**90.3%**
PERFORMANCE OBJECTIVE #1	**Customer Focus and Satisfaction**	**(Weight = 10%)**	**5.0**	**4.8**	**95.0%**
1.1	**Methods to Evaluate Customer Expectations**	**(Weight = 5%)**	**2.5**	**2.4**	**95.0%**
1.1.a	Effectiveness of Methods		2.5	2.4	95.0%
1.2	**Customer Satisfaction**	**(Weight = 5%)**	**2.5**	**2.4**	**95.0%**
1.2.a	Customer Satisfaction Results		2.5	2.4	95.0%
PERFORMANCE OBJECTIVE #2	**Decision Support and Operational Effectiveness**	**(Weight =40%)**	**20.0**	**18.8**	**93.8%**
2.1	**Proactive Decision Support Activities**	**(Weight = 25%)**	**12.5**	**11.5**	**92.0%**
2.1.a	Quality Products and Services		4.0	3.8	95.0%
2.1.b	Leadership in Financial Information System and Decision Support Tools		6.0	5.4	90.0%
2.1.c	Quality Processes		2.5	2.3	92.0%
2.2	**Transaction Processing Improvements**	**(Weight = 15%)**	**7.5**	**7.3**	**96.8%**
2.2.a	Demonstration of Improvement		7.5	7.3	96.8%
PERFORMANCE OBJECTIVE #3	**Financial Stewardship and Integrity**	**(Weight = 40%)**	**20.0**	**17.0**	**84.9%**
3.1	**Cost and Commitments are Managed Properly**	**(Weight =10%)**	**5.0**	**4.6**	**92.0%**
3.1.a	Cost and Commitments are Controlled to Appropriate Funding Levels		2.5	2.3	92.0%

Appendix C - Operations and Administration System Scores

3.1.b	Control of Funds	2.5	2.3	92.0%
3.2	**Financial Management Practices (Weight = 15%)**	**7.5**	**6.2**	**83.0%**
3.2.a	Financial Policies, Practices, Data, and Reports	7.5	6.2	83.0%
3.3	**Effective Internal Controls and Compliance (Weight = 15%)**	**7.5**	**6.2**	**82.0%**
3.3.a	Internal Controls and Compliance Process Management	7.5	6.2	82.0%
PERFORMANCE OBJECTIVE #4	**Learning and Growth (Weight = 10%)**	**5.0**	**4.7**	**93.0%**
4.1	Work Force Management **(Weight = 10%)**	**5.0**	**4.7**	**93.0%**
4.1.a	Effective Work Force Management	5	4.7	93.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE			WEIGHT	SCORE	PERCENT
HUMAN RESOURCES			**50.0**	**44.8**	**89.6%**
PERFORMANCE OBJECTIVE #1	**Effectiveness of HR Operations**	**(Weight = 100%)**	**50.0**	**44.8**	**89.6%**
1.1	**Compensation Programs**	**(Weight = 20%)**	**10.0**	**9.2**	**91.8%**
1.1.a	Cost Competitive Compensation		7.5	7.1	95.0%
1.1.b	Compensation Increase Plan (CIP)		2.5	2.1	82.0%
1.2	**Employment of Minorities and Women**	**(Weight = 10%)**	**5.0**	**4.3**	**85.0%**
1.2.a	Employment of Minorities and Women		5.0	4.3	85.0%
1.3	**HR Systems and Processes**	**(Weight = 15%)**	**7.5**	**6.4**	**85.0%**
1.3.a	Identify HR Systems…		7.5	6.4	85.0%
1.4	**Labor Relations**	**(Weight = 15%)**	**7.5**	**7.1**	**95.0%**
1.4.a	Laboratory will timely process…		7.5	7.1	95.0%
1.6	**Workforce Excellence**	**(Weight =30%)**	**15.0**	**13.1**	**87.3%**
1.6.a	Workforce Planning/Staffing		5.0	4.3	85.0%
1.6.d	Recruitment		2.5	1.9	75.0%
1.6.e	Foreign Nationals		2.5	2.4	95.0%
1.6.f	Delivery of Benefits Information		5.0	4.6	92.0%
1.7	**Employee Relations**	**(Weight = 10%)**	**5.0**	**4.8**	**95.0%**
1.7.a	Employee Relations		5.0	4.8	95.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE	WEIGHT	SCORE	PERCENT
INFORMATION MANAGEMENT	**50.0**	**45.7**	**91.4%**
PERFORMANCE OBJECTIVE #1 Information Management Program (Weight = 100%)	**50.0**	**45.7**	**91.4%**
1.1 Operational Effectiveness (Weight = 30%)	**15.0**	**14.1**	**94.0%**
1.1.a Operational Effectiveness	15.0	14.1	94.0%
1.2 Customer Focus (Weight = 30%)	**15.0**	**13.2**	**88.0%**
1.2.a Level of Customer Service	15.0	13.2	88.0%
1.3 IM Stewardship (Weight = 20%)	**10.0**	**9.2**	**92.0%**
1.3.a Effective Management of Compliance and Commitments.	10.0	9.2	92.0%
1.4 Strategic and Tactical Planning (Weight = 20%)	**10.0**	**9.2**	**92.0%**
1.4.a Planning Initiatives	10.0	9.2	92.0%

Appendix C - Operations and Administration System Scores

PERFORMANCE OBJECTIVE	WEIGHT	SCORE	PERCENT
PROCUREMENT	**50.0**	**45.7**	**91.3%**
PERFORMANCE OBJECTIVE #1 Mgmt. of Internal Business Processes (Weight = 65%)	**32.5**	**29.8**	**91.8%**
1.1 System Evaluation (Weight = 30%)	**15.0**	**14.7**	**98.0%**
1.1.a Assessing System Operations	15.0	14.7	98.0%
1.2 Pursuing Best Practices (Weight = 20%)	**10.0**	**9.5**	**95.0%**
1.2.a Measuring Effectiveness	10.0	9.5	95.0%
1.3 Supplier Performance (Weight = 15%)	**7.5**	**5.6**	**75.0%**
1.3.a Measuring Supplier Performance	7.5	5.6	75.0%
1.4 Socioeconomic Subcontracting (Weight - 0%)	**0.0**	**0.0**	**0.0%**
1.4.a Meeting Socioeconomic Commitments	0.0	0.0	
PERFORMANCE OBJECTIVE #2 Customer Satisfaction (Weight = 10%)	**5.0**	**4.6**	**92.0%**
2.1 Customer Feedback (Weight = 10%)	**5.0**	**4.6**	**92.0%**
2.1.a Customer Satisfaction Rating	5.0	4.6	92.0%
PERFORMANCE OBJECTIVE #3 Learning and Growth (Weight = 15%)	**7.50**	**6.5**	**86.3%**
3.1 Employee Feedback (Weight = 5%)	**2.5**	**2.2**	**89.0%**

Appendix C - Operations and Administration System Scores

3.1.a Employee Satisfaction Rating	2.5	2.2	89.0%
3.2 Information Availability (Weight = 10%)	**5.0**	**4.3**	**85.0%**
3.2.a Measuring Availability of Information	5.0	4.3	85.0%
PERFORMANCE OBJECTIVE #4 Managing Financial Aspects (Weight = 10%)	**5.0**	**4.8**	**95.0%**
4.1 Process Cost (Weight = 10%)	**5.0**	**4.8**	**95.0%**
4.1.a Cost to Spend Ratio	5.0	4.8	95.0%

PERFORMANCE OBJECTIVE			WEIGHT	SCORE	PERCENT
PROPERTY MANAGEMENT			**50.0**	**42.5**	**85.0%**
		Points		**460.0**	
PERFORMANCE OBJECTIVE #1	**Accountability for Equipment and Sensitive Property,**				
	and Precious Metals	**(Weight = 50%)**	**25.0**	**222.0**	
1.1	**Accountability for Equipment, Sensitive Property**				
	and Precious Metals	**(Weight = 35%)**	**17.5**	**152.0**	
1.1.a	Property and Precious Metals Accounted For		17.5	152.0	
1.2	**Identification of Items Subject to Inventory**	**(Weight = 15%)**	**7.5**	**70.0**	
1.2.a	Accuracy of Identification		7.5	70.0	
PERFORMANCE OBJECTIVE #2	**Stewardship Over Personal Property**	**(Weight = 20%)**	**10.0**	**90.0**	
2.1	**Org.Stewardship and Individual Accountability**	**(Weight =20%)**	**10.0**	**90.0**	
2.1.a	Timeliness of Assignment		10.0	90.0	
PERFORMANCE OBJECTIVE #3	**Vehicle Utilization**	**(Weight = 5%)**	**2.5**	**25.0**	
3.1	**Fleet Management**	**(Weight = 5%)**	**2.5**	**25.0**	
3.1.a	Vehicle Utilization		2.5	25.0	
PERFORMANCE OBJECTIVE #4	**Information to Improve/Maintain Processes (Syst. Eval.)**	**(Weight = 10%)**	**5.0**	**50.0**	
4.1	**Self-Assessment of Policies and Procedures**	**(Weight = 10%)**	**5.0**	**50.0**	

4.1.a	Assessing Support Processes	5.0	50.0	
PERFORMANCE OBJECTIVE #5	**Customer Alignment (Weight = 5%)**	**2.5**	**23.0**	
5.1	**Monitoring Customer Alignment (Weight = 5%)**	**2.5**	**23.0**	
5.1.a	Aligning Customer Expectations	2.5	23.0	
PERFORMANCE OBJECTIVE #6	**Balancing Performance and Cost (Weight = 5%)**	**2.5**	**25.0**	
6.1	**Balancing Performance/Cost Ratios (Weight = 5%)**	**2.5**	**25.0**	
6.1.a	Measure Cost Efficiency Effectiveness	2.5	25.0	
PERFORMANCE OBJECTIVE #7	**Organizational Vitality (Weight = 5%)**	**2.5**	**25.0**	
7.1	**Evaluation of Organizational Agility and Employee Alignmen (Weight = 5%)**	**2.5**	**25.0**	
7.1.a	Measuring Organizational Agility and Employee Alignment	2.5	25.0	

Appendix C - Operations and Administration and Overall Scores Summary
Lawrence Berkeley National Laboratory

FY 2001

FUNCTIONAL AREA	POINTS POSSIBLE	SCORE	PERCENT
LABORATORY MANAGEMENT	50	47.1	94.1%
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT	40	38.9	97.3%
ENVIRONMENT, SAFETY & HEALTH	110	101.9	92.6%
FACILITIES MANAGEMENT	50	45.9	91.7%
FINANCIAL MANAGEMENT	50	45.2	90.3%
HUMAN RESOURCES	50	44.8	89.6%
INFORMATION MANAGEMENT	50	45.7	91.4%
PROCUREMENT	50	45.7	91.3%
PROPERTY MANAGEMENT	50	42.5	85.0%
O&A SUBTOTAL	500	457	91.5%
S&T SUBTOTAL	500	466	93.3%
LBNL TOTAL	1,000	923	92.3%

Appendix C - Operations and Administration and Overall Scores Summary
Lawrence Berkeley National Laboratory

ADJECTIVE
Outstanding
Outstanding
Outstanding
Outstanding
Outstanding
Excellent
Outstanding
Outstanding
Excellent
Outstanding
Outstanding
Outstanding

Appendix D

Computation of
Salary Increase Authorization
Multiplier

Appendix F Element of Laboratory Performance

Performance Area	Rating	%	x	Pts	=	Score
Total Science & Technology	Outstanding	93.3%	x	500	=	466
Laboratory Management	Outstanding	94.1%	x	50	=	47
Operations & Administrative Systems						
Environ Restoration & Waste Mgmt	Outstanding	97.3%	x	40	=	38.9
Environment, Safety and Health	Outstanding	92.6%	x	110	=	101.9
Facilities Management	Outstanding	91.7%	x	50	=	45.7
Financial Management	Outstanding	90.3%	x	50	=	45.2
Human Resources	Excellent	89.6%	x	50	=	44.8
Information Management	Outstanding	91.4%	x	50	=	45.7
Procurement	Outstanding	91.3%	x	50	=	45.7
Property Management	Excellent	85.0%	x	50	=	42.5
Total Operations & Administration	Outstanding	91.1%	x	450		410
Total Laboratory:		**Outstanding**				**923**

FY 2001 Salary Increase Fund for UC Laboratories

Salary Increase Authorization Multiplier (from Appendix F):	1.50					
Executive Merit Pool (based on S&E):	5.70%					
Executive Performance Merit Pool (Appendix A & F):	5.70%	x	1.50	=	8.55%	